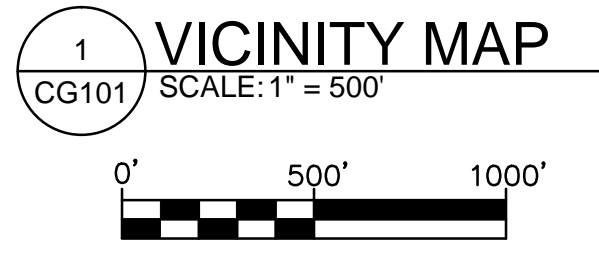


SHERIDAN WYOMING VAMC
1898 FORT ROAD; BUILDING 42
SHERIDAN, WYOMING
PROJECT #666-310
E85 FUELING STATION



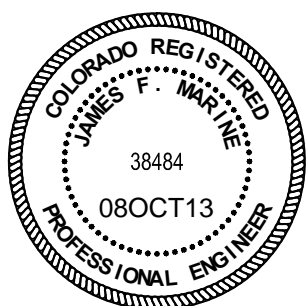
INDEX:

CG101	COVERSHEET
CP101	GRADING PLAN AND SITE PLAN
CU501	UST DETAILS AND HOLD DOWN
CU502	UST DETAILS AND SLAB REINFORCING
E101	ELECTRICAL PLAN AND NOTES
E102	VEEDER ROOT OVERFILL ALARM
M101	UST DETAILS
M102	UST DETAILS
SF101	CANOPY FRAMING

FINALIZED DESIGN DEVELOPMENT - FOR CONSTRUCTION

CONSULTANTS:

ARCHITECT/ENGINEERS:



Aegis Engineering, Inc.
A Veteran Owned Small Business
10940 South Parker Road
Ste. 199
Parker, Colorado
80134
(720)259-0749

Drawing Title
COVERSHEET
-
-
Approved Project Director
-
VAPAHCs PLANNING AND ENGINEERING

Project Title
E85 FUELING STATION
-
-
Location
VAMC SHERIDAN WY
Date
10 OCT 13
Checked
HALL
Drawn
MARINE

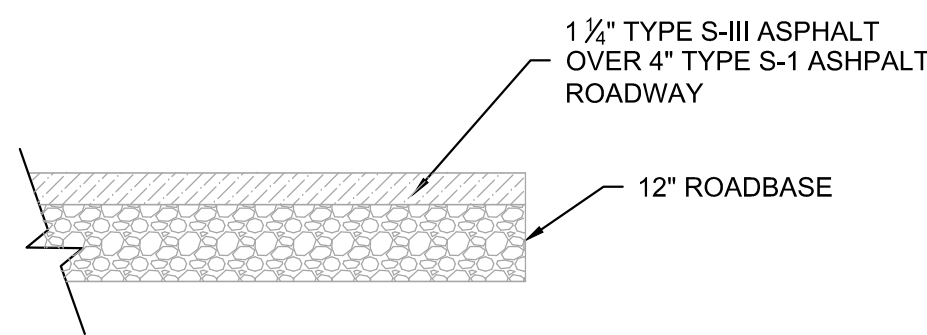
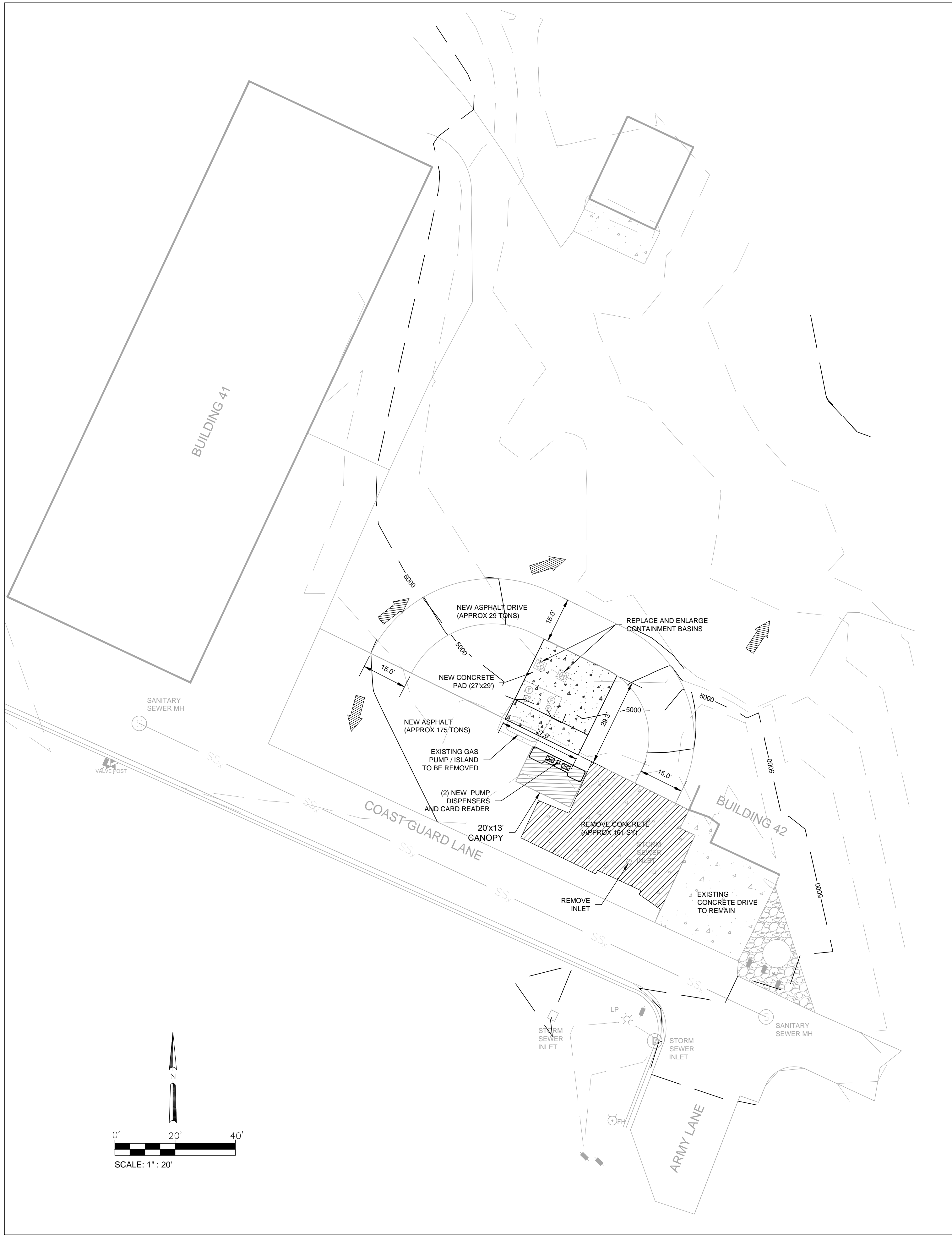
Project Number
666-310
Building Number
42
Drawing Number
CG101
Dwg. 1 of 9

Office of
Construction
and Facilities
Management

three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot

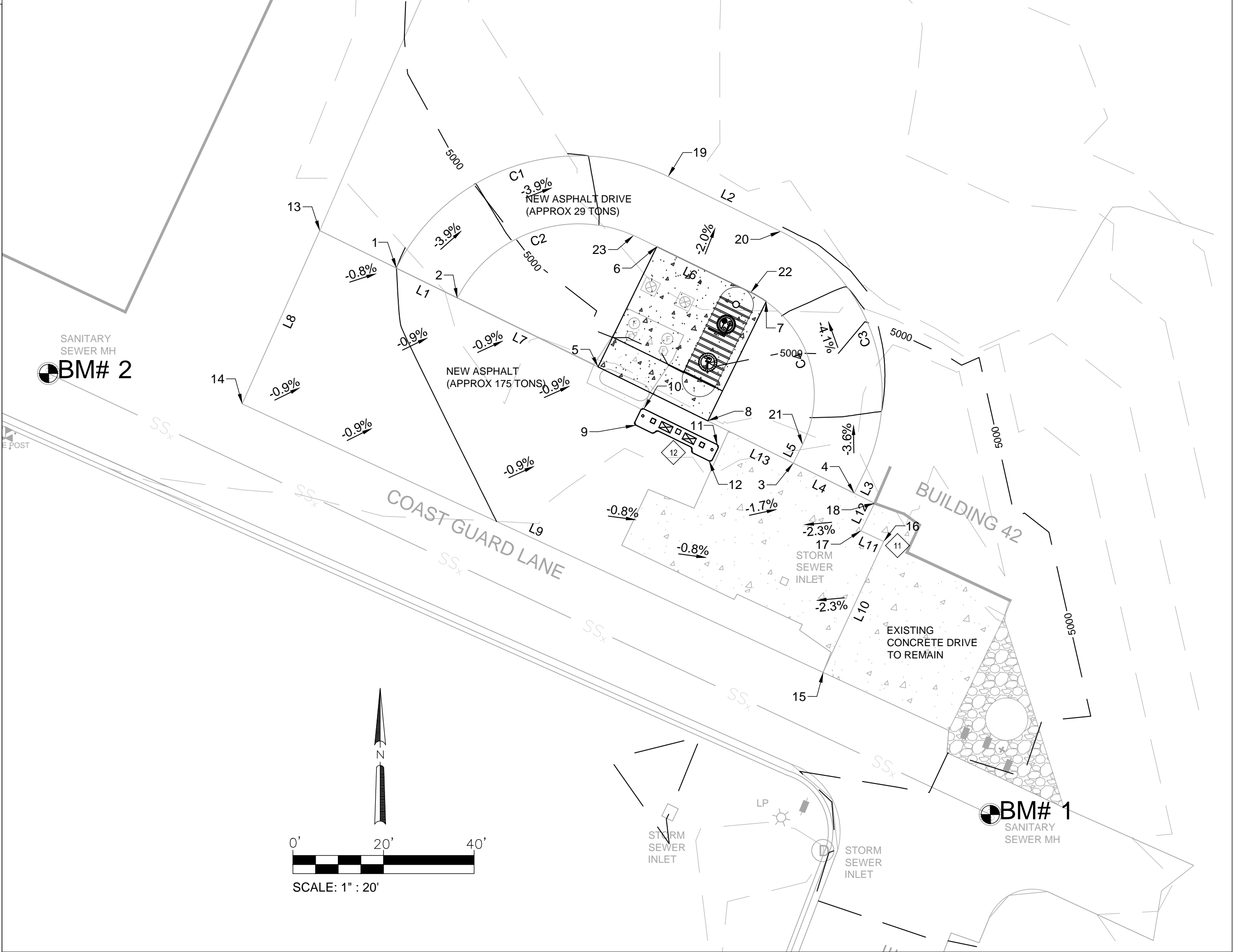
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VA FORM 08-6231



3 PAVING SECTION
SCALE: N.T.S.

1 GRADING PLAN
SCALE: 1" = 20'



2 SITE PLAN
SCALE: 1" = 20'

LINE TABLE		
LINE #	LENGTH (ft.)	DIRECTION
L1	15.00	N63° 53' 28.92"W
L2	27.63	S63° 56' 51.80"E
L3	4.59	S28° 20' 16.20"W
L4	15.00	N63° 39' 43.80"W
L5	4.59	N26° 20' 16.20"E
L6	27.62	N64° 00' 27.64"W
L7	100.46	N63° 53' 28.92"W
L8	41.89	S24° 07' 43.61"W
L9	141.25	S65° 11' 27.47"E
L10	31.85	N24° 47' 47.46"E
L11	5.54	N64° 57' 38.01"W
L12	6.78	N26° 20' 16.20"E
L13	35.95	N63° 39' 43.80"W

POINT TABLE				
Point #	Elevation	Northing	Easting	Description
1	5001.00	10103.31	9932.87	EOA
2	5000.88	10096.73	9946.31	EOA
3	5000.35	10060.32	10020.46	EOA
4	5000.65	10063.67	10033.90	EOA
5	5000.66	10081.54	9977.38	EOC
6	4998.61	10108.10	9990.34	EOC
7	4998.80	10095.97	10014.46	EOC
8	5000.49	10069.64	10001.59	EOC
9	5000.65	10068.69	9985.72	ISLAND
10	5000.65	10072.28	9987.47	ISLAND
11	5000.65	10064.38	10003.65	ISLAND
12	5000.65	10060.79	10001.89	ISLAND

POINT TABLE				
Point #	Elevation	Northing	Easting	Description
13	5001.11	10111.61	9915.95	EOA
14	5001.34	10073.38	9898.82	EOA
15	5000.41	10014.11	10027.04	EOA
16	5000.91	10043.02	10040.40	EOA
17	5000.71	10045.37	10035.37	EOA
18	5000.97	10051.45	10038.38	EOA
19	4998.30	10123.59	9992.83	EOA
20	4998.35	10111.46	10017.65	EOA
21	5000.25	10064.43	10022.49	EOA
22	4998.65	10097.98	10011.06	EOA
23	4998.60	10110.59	9985.24	EOA

CURVE TABLE					
CURVE #	LENGTH (ft.)	RADIUS (ft.)	DELTA	CHORD DIRECTION	CHORD LENGTH (ft.)
C1	70.20	45.00	89.38	S71° 20' 51"W	63.29
C2	46.66	30.00	89.10	S71° 29' 05"W	42.09
C3	63.03	40.00	90.29	N18° 48' 18"W	56.71
C4	39.39	25.00	90.29	N18° 48' 18"W	35.44

GENERAL NOTES:

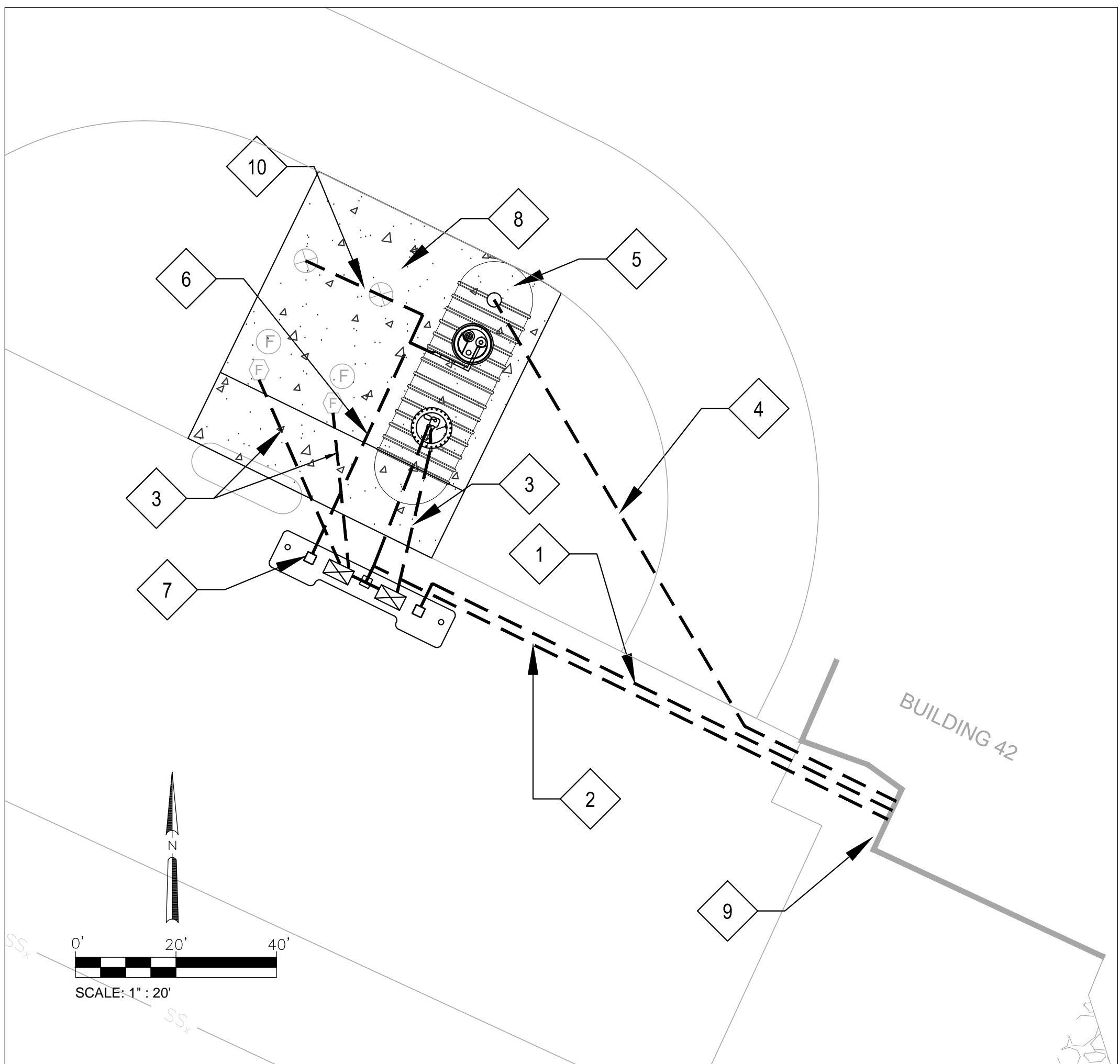
- EXISTING FUELING STATION TO BE OPERABLE DURING CONSTRUCTION.
- TANK VENT LINE SHALL EXTEND A MINIMUM OF 3'-0" ABOVE CANOPY.
- FUEL DISPENSERS SHALL BE WAYNE G5200 UNITS (OR EQUAL WITH E85 OPTION FOR ONE DISPENSER. COLOR SHALL BE THE STANDARD OPTION BLUE. ENSURE CARD READER OPERATES WITH EXISTING GSA CHARGE CARD AND HAS SIMILAR KEY IN FUNCTIONS AS EXISTING SYSTEM. PETROVEND K800 FUEL CONTROL SYSTEM (OR EQUIVALENT), MAY REUSE EXISTING CARD READER IF COMPATIBLE WITH 3 DISPENSING UNITS.
- PROVIDE POSITIVE DRAINAGE AWAY FROM DISPENSER ISLAND.

NOTES:

- 3" DIAMETER SECURITY CAMERA CONDUIT. COORDINATE TERMINATION POINT IN BUILDING 42 WITH VA SECURITY.
- 3" DIAMETER POWER SUPPLY CONDUIT.
- 2" DISPENSER SUPPLY PIPING.
- 3/4" DIAMETER SENSOR, VEEDER ROOT CONDUIT. COORDINATE TERMINATION POINT IN BUILDING 42 WITH VA SECURITY.
- 5,000 GALLON DOUBLE WALLED FIBERGLASS UNDERGROUND STORAGE TANK
- TANK VENTING LINE
- TANK VENTING RISER
- 8" THICK CONCRETE SLAB
- ELECTRICAL SERVICE PANEL
- TANK VENTING LINE TO CONNECT TO EXISTING UNLEADED FUEL TANK
- PTZ SECURITY CAMERA. AXIS MODEL P5534-E
- PTZ SECURITY CAMERA. AXIS MODEL P13 (FIXED BELOW FUEL CANOPY)

PROJECT BENCHMARKS:

- BENCHMARK #1 (BM#1) IS THE TOP OF EXISTING SANITARY MANHOLE:
N= 9982.75
E= 10063.95
ELEVATION= 4999.74
- BENCHMARK #2 (BM#2) IS THE TOP OF EXISTING SANITARY MANHOLE:
N= 10080.10
E= 9856.09
ELEVATION= 5001.51



3 CONDUIT PLAN
SCALE: 1" = 10'

FINALIZED DESIGN DEVELOPMENT - FOR CONSTRUCTION

CONSULTANTS:

ARCHITECT/ENGINEERS:

Aegis Engineering, Inc.
A Veteran Owned Small Business

10940 South Parker Road
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Drawing Title
E85 FUELING STATION
SITE PLAN

Approved Project Director

VAPAHCs PLANNING AND ENGINEERING

Project Title
E85 FUELING STATION

Location
VAMC

10 OCT 13

Checked
HALL

Drawn
MARINE

Project Number
666-310

Building Number
42

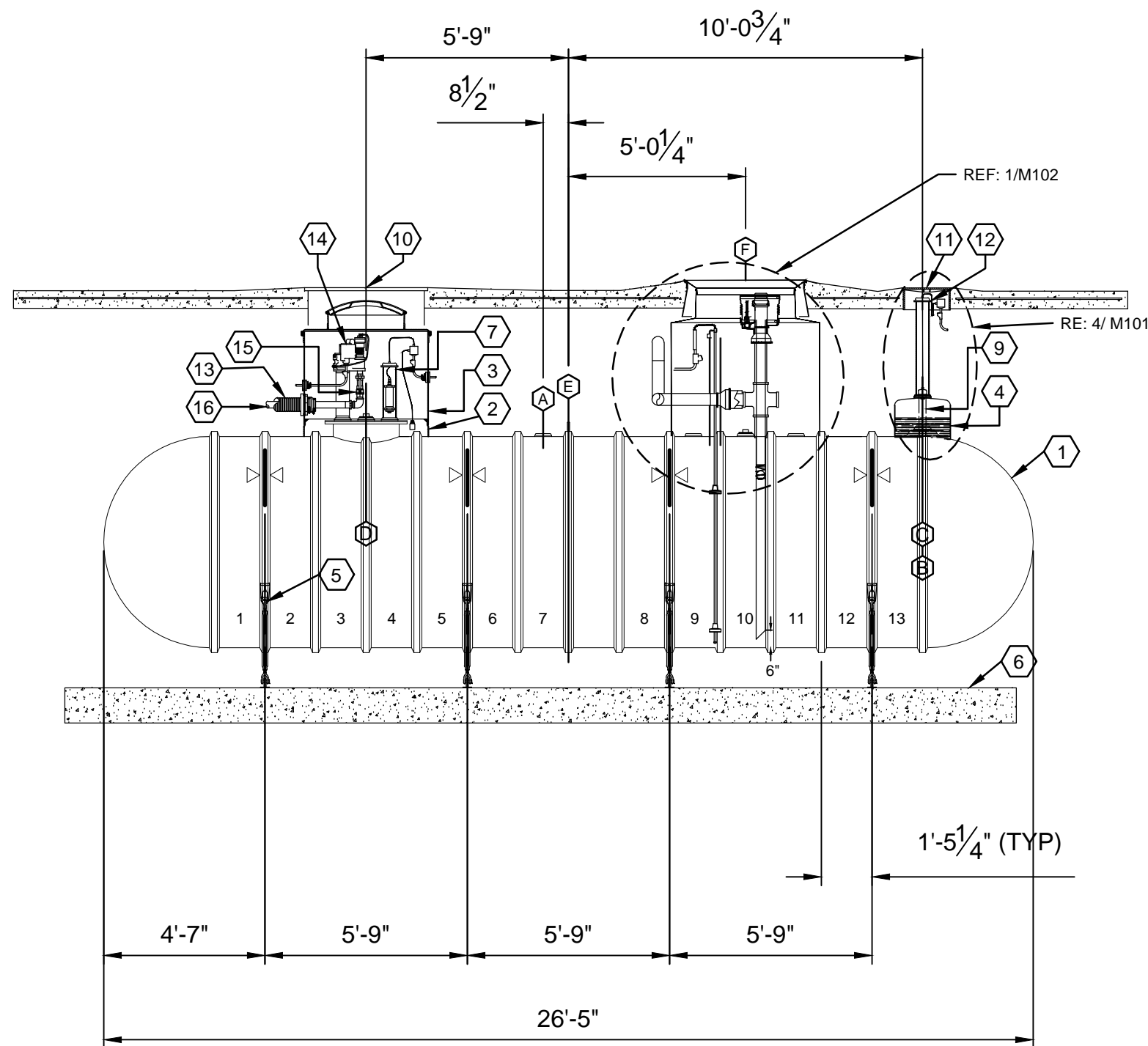
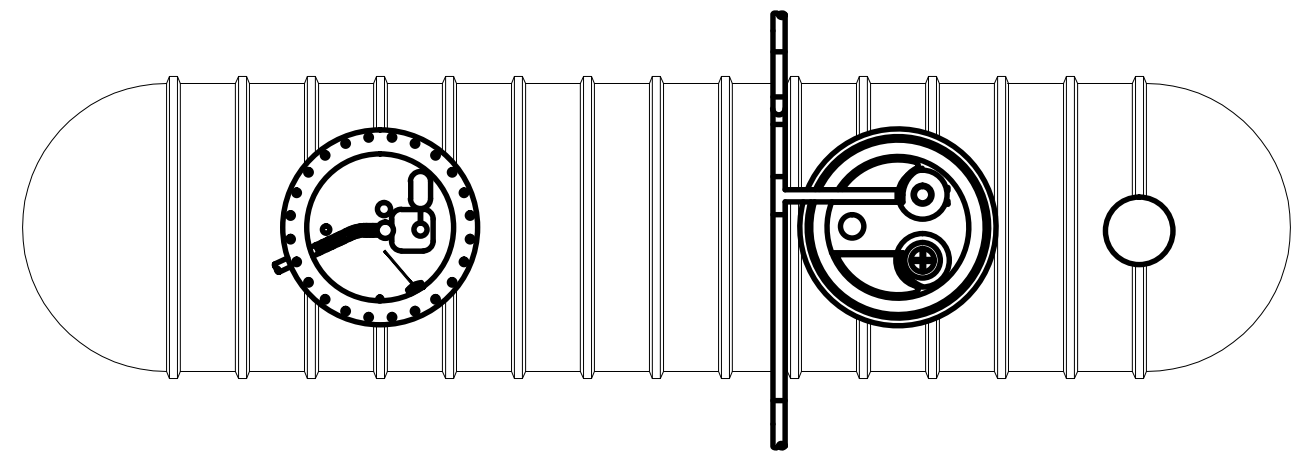
Drawing Number
CP101

Dwg. 2 of 9

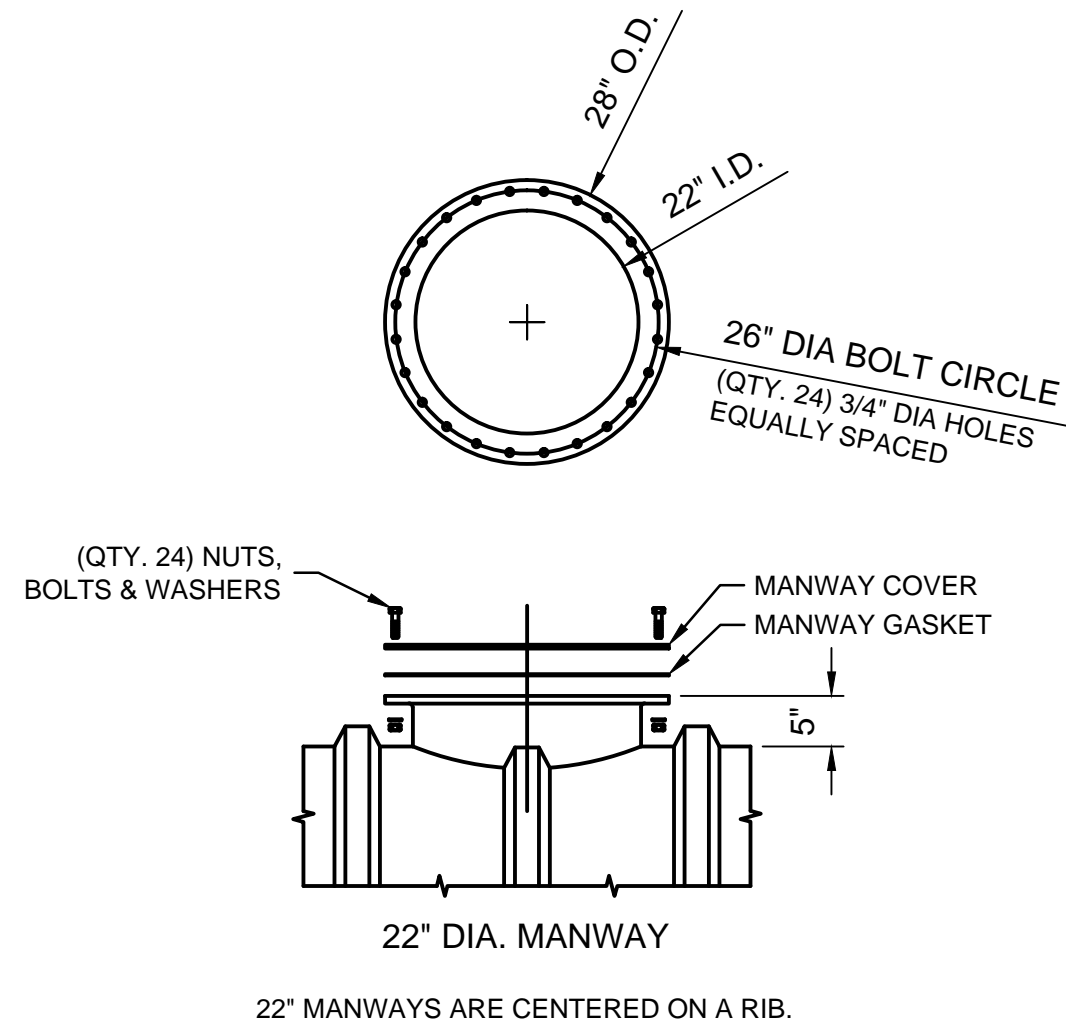
Office of
Construction
and Facilities
Management

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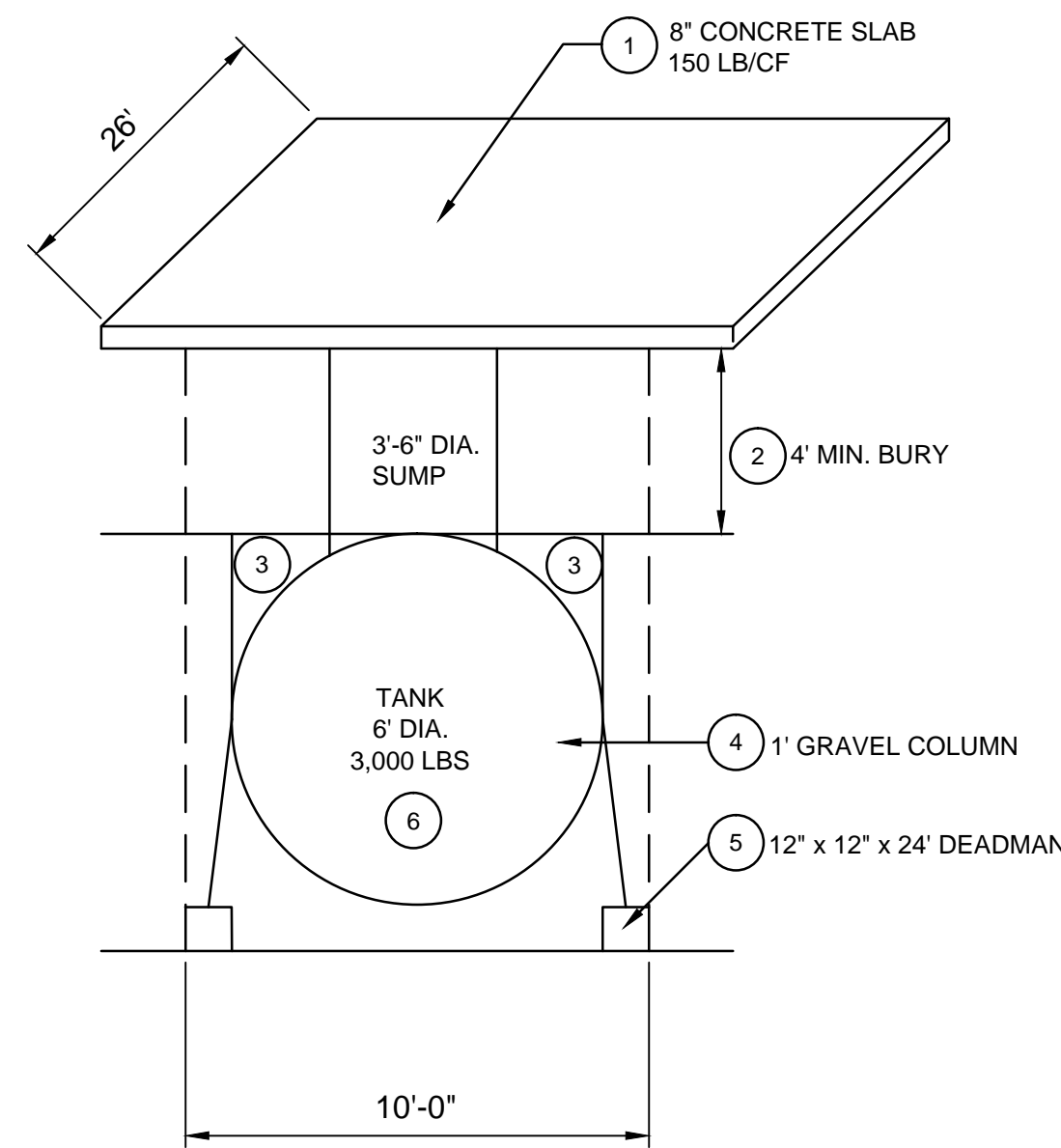
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ITEM	QTY	DESCRIPTION
(A)	3	4" NPT SERVICE FITTING WITH 12"x12" STRIKER PLATE
(B)	1	4" NPT MONITOR FITTING
(C)	1	18" DIA. HYDROSTATIC MONITORING RESERVOIR WITH 4" NPT FITTING
(D)	1	22" DIA. MANWAY WITH 3-4" NPT FITTINGS IN COVER & 4-12"x12" STRIKER PLATES
(E)	1	LIFTING LUG
(F)	1	42" DIA. ATTACHED COLLAR
(G)	4	HOLD DOWN STRAP LOCATION
1	1	5,000 GALLON DOUBLE WALL FIBERGLASS STORAGE TANK
2	1	42" FIBERGLASS ATTACHED COLLAR
3	1	42" WATERTIGHT FIBERGLASS ATTACHED COLLAR RISER
4	1	HYDROSTATIC MONITORING SYSTEM
5	4	FIBERGLASS HOLD DOWN STRAP W/ TURNBUCKLE ASSY.
6	4	PRECAST DEADMAN SYSTEM
7	1	LEVEL PROBE
9	1	HYDROSTATIC MONITORING SENSOR
10	1	LARGE ROUND MANHOLE
11	1	MONITORING MANHOLE
12	1	4" SENSOR CAP
13	1	FLEXIBLE ENTRY BOOT(S)
14	1	SUBMERSIBLE TURBINE PUMP
15	1	FULL PORT BALL VALVE
16		DOUBLE WALL PRODUCT SUPPLY PIPING



DOUBLE WALL, PRESSURIZED PIPING
STAGE I VAPOR RECOVERY
2 CU501 SCALE: N.T.S.



TOTAL HOLD DOWN: 204,610 LBS = 2.86 FACTOR OF SAFETY
TOTAL TANK UPLIFT: 71,573 LBS

BUOYANCY CALCULATION (5,000 GAL. TANK)
CALCULATION BASED ON SUBMERGED WEIGHT OF MATERIALS (WATER TABLE AT GRADE); TANK WITH SPHERICAL ENDS, 6.33' O.A. (6' NOMINAL) TANK LENGTH 26'-5" TANK DIAMETER 6'-0"

TRY (2) 12'-0" DEADMAN, EACH SIDE, 12" WIDE x 12" HIGH

EMPTY TANK UPLIFT = 5,000 GAL = 668 CU FT
7.48 GAL/CF
668 CU FT x 62.4 LBS/CF = 41,683 LBS (DISPLACED WATER)

TANK SUMP UPLIFT = (2) x 3.14 x 1.75' x 4' = 77 CU FT
77 CU FT x 62.4 LBS/CF = 4,805 LBS (DISPLACED WATER)

TOTAL TANK UPLIFT = 41,683 LBS + 4,805 LBS = 46,488 LBS

HOLD DOWN CALCULATION
TANK SLAB: 67' x 26' x 8' = 139.4 CU FT
174.2 CU FT x 150 LBS/CF = 20,895 LBS

BACKFILL ABOVE TANK:
4' x 6' x 26' = 624 CU FT - 77 CU FT (SUMP) = 547 CU FT
547 CU FT x 110 LBS/CF = 60,170 LBS

CURVED BACKFILL ABOVE TANK:
3.14 x 3' x 26' = 735 CU FT
6' x 6' x 26' = 936 CU FT
936 CU FT - 735 CU FT = 201 CU FT = 101 CU FT

101 CU FT x 110 LBS/CF = 11,110 LBS

GRAVEL ABOVE DEADMAN:
12' x 11' x 24' x 2 = 528 CU FT
528 CU FT x 110 LBS/CF = 58,080 LBS

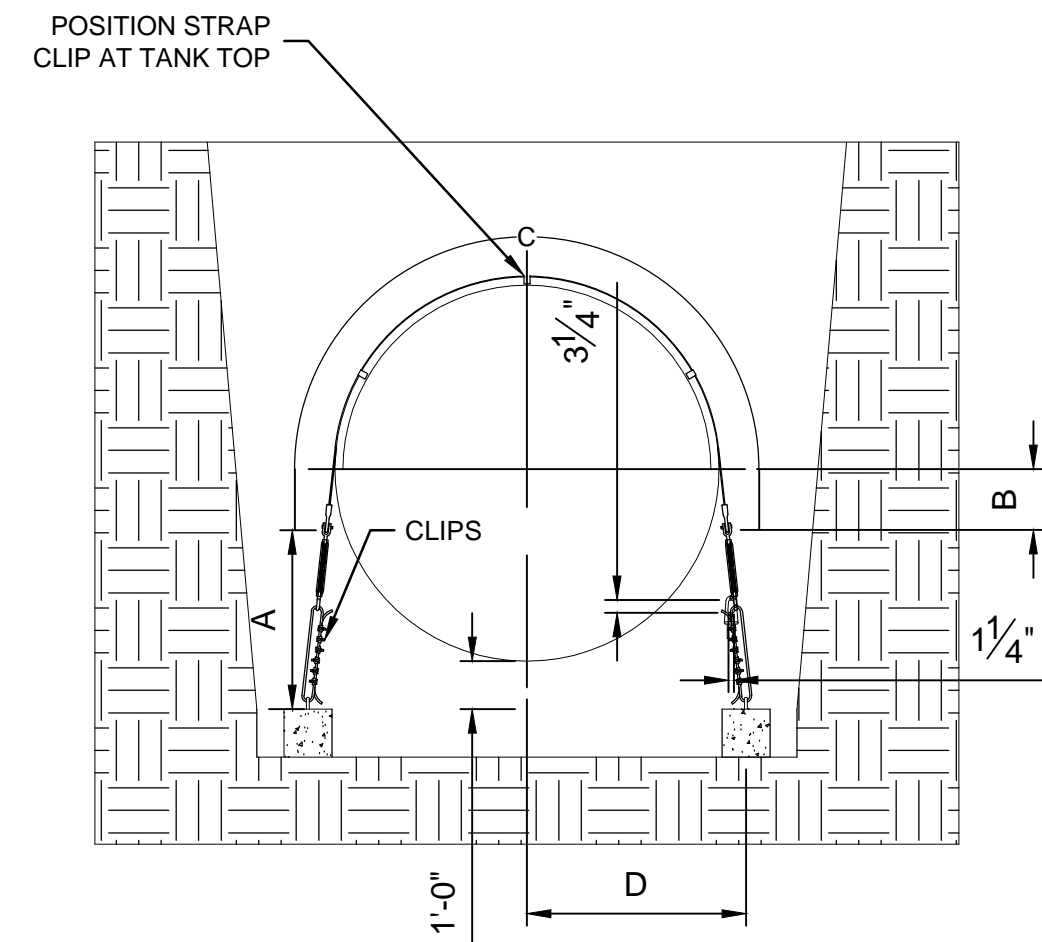
CONCRETE DEADMAN:
1' x 1' x 24' = 24 CU FT
24 CU FT x 150 LBS/CF x 2 = 3,600 LBS

DRY WEIGHT OF TANK: 3,000 LBS

TOTAL HOLD DOWN: 156,855 LBS = 3.4 F.S.

3 BUOYANCY CALCULATION
CU501 SCALE: N.T.S.

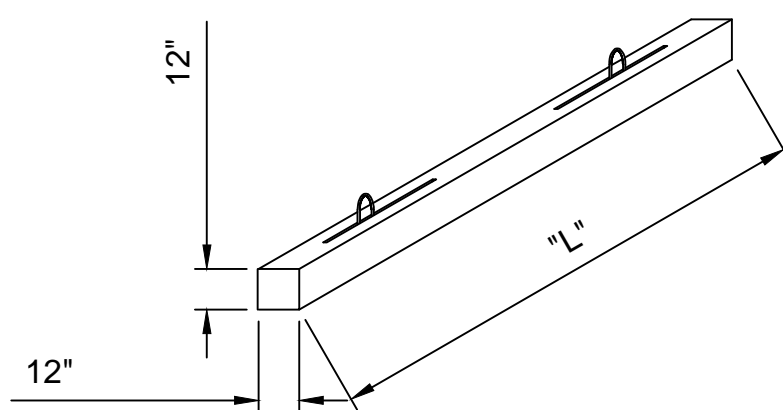
1 DOUBLE WALL, PRESSURIZED PIPING
STAGE I VAPOR RECOVERY
CU501 SCALE: N.T.S.



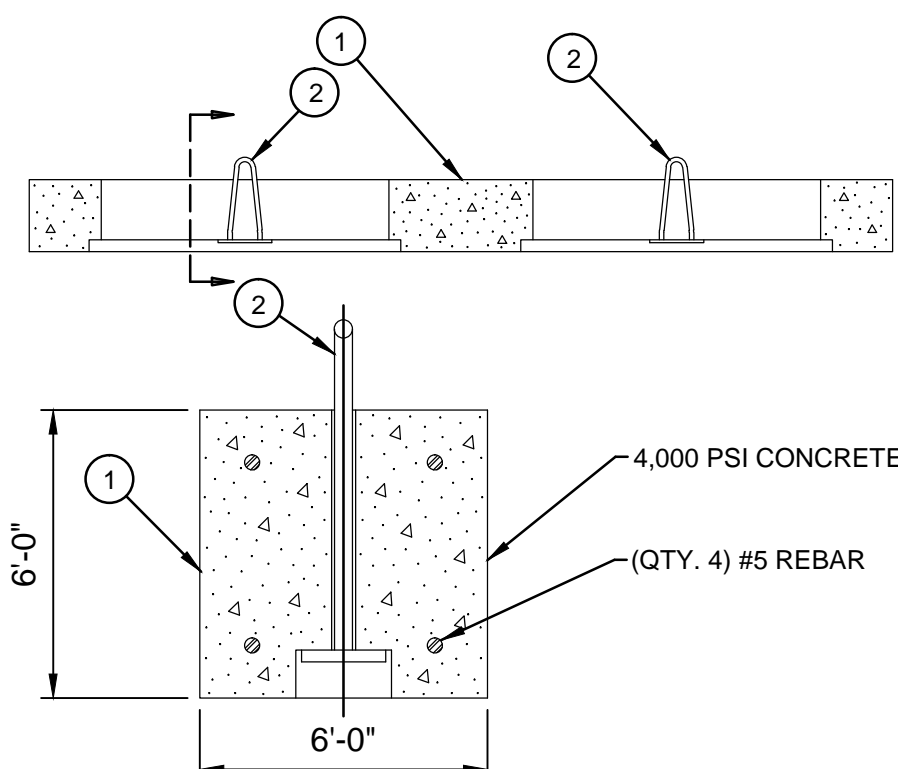
TANK DIA.	"A"	"B"	"C"	"D"	"E"
6"	35"	13"	12'-1"	42"	48"

4 STRAP TIE-DOWN
CU501 SCALE: N.T.S.

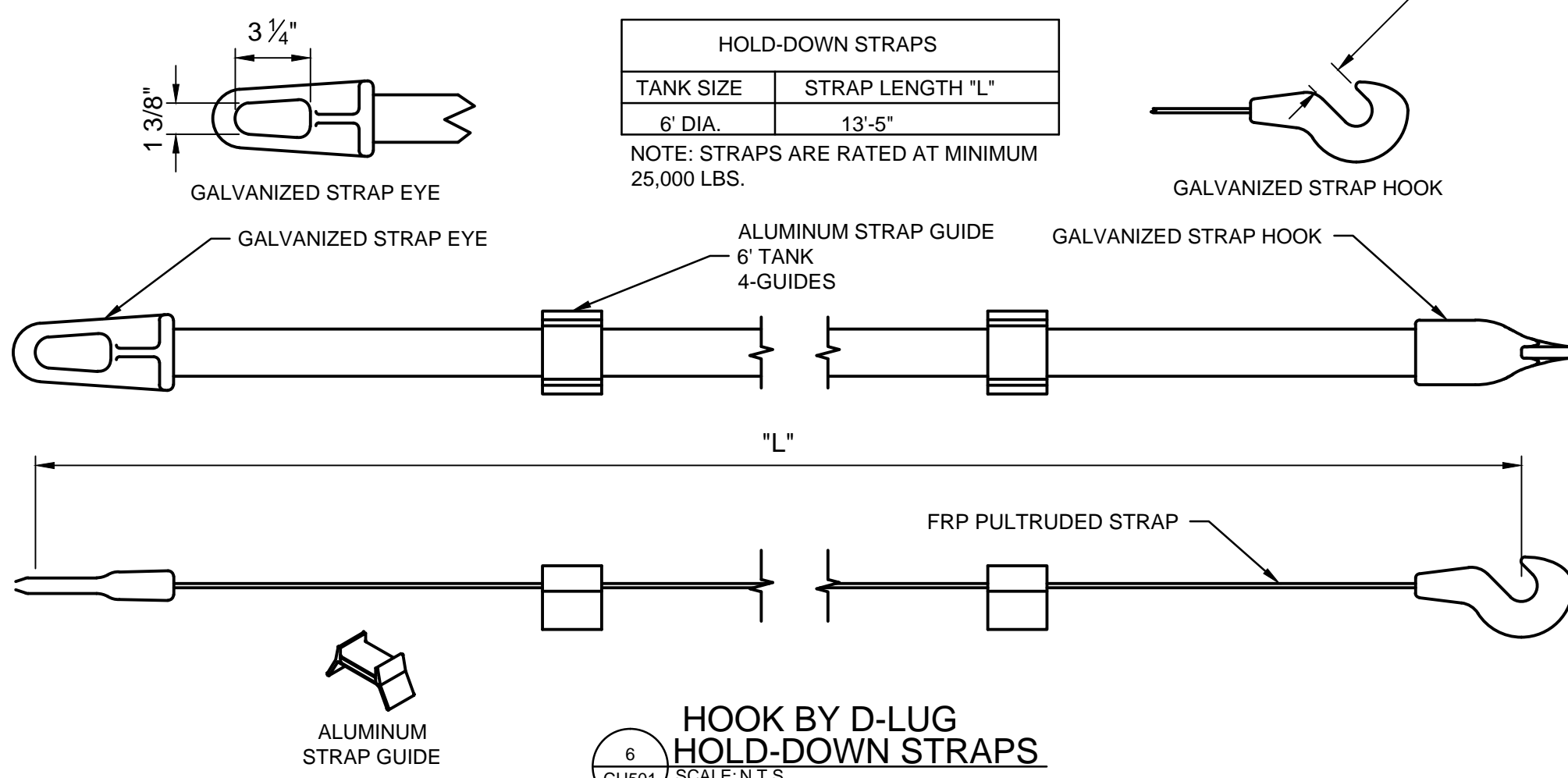
TANK SIZE	QTY	"L"	APPROX. WEIGHT EACH
6'-5,000	4	12'	1,800 LBS



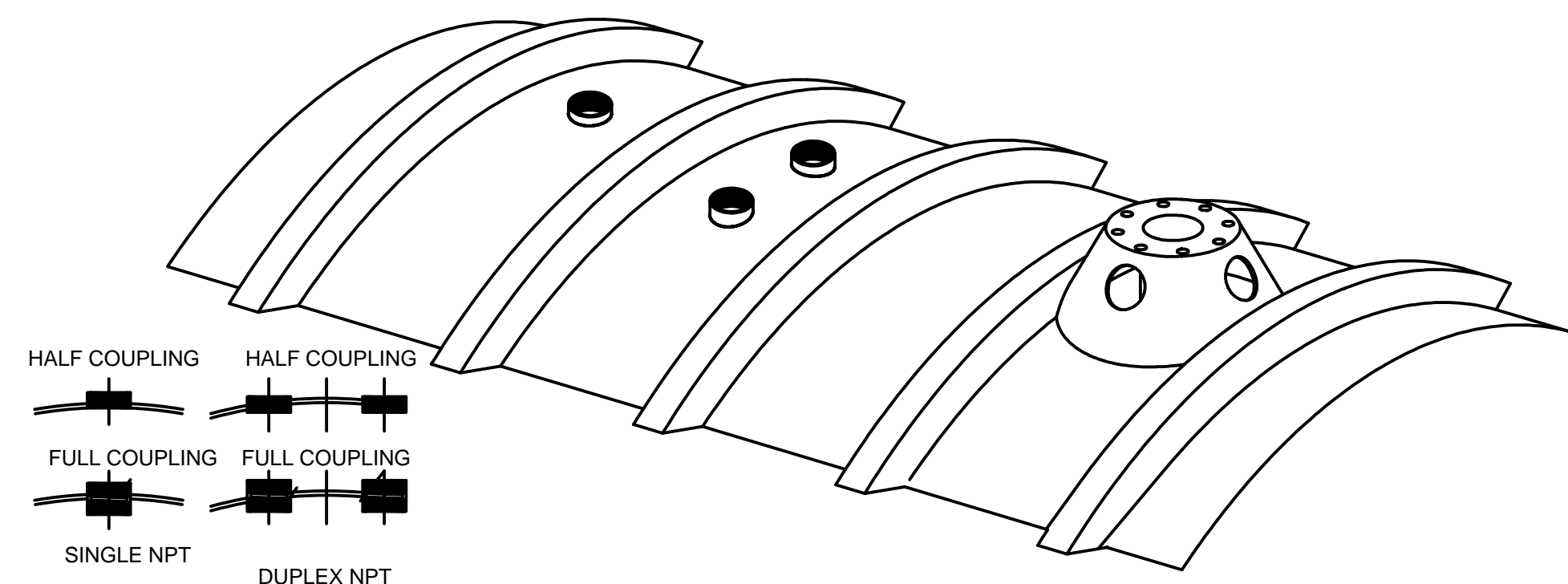
5 PRE-FABRICATED DEADMAN
CU501 SCALE: N.T.S.



ITEM	QTY	UNIT	DESCRIPTION
1	4	EA	DEADMAN, 12"x12"x12"
2	8	EA	GALVANIZED ANCHOR POINT



6 HOOK BY D-LUG
HOLD-DOWN STRAPS
CU501 SCALE: N.T.S.



FLANGED NOZZLE NOTES:
- ALL BOLTING PATTERNS CONFORM TO ANSI B16.5 150# STANDARD.
- ALL FLANGED NOZZLES ARE AXIALLY MOUNTED ON THE TANK TOP CENTERLINE.

FITTING NOTES:
- ALL NPT FITTINGS MUST BE POSITIONED ON THE TOP CENTERLINE OF THE TANK - AVAILABLE IN 2", 4" AND 6" SIZES.

NOZZLE DIA.	# OF BOLTS	CIRCLE DIA.	HOLE DIA.	FLANGE DIA.	PROJECT HGT.
2"	4	4 3/4"	3/4"	6"	6"
4"	8	7 1/2"	3/4"	9"	6"
6"	8	9 1/2"	7/8"	11"	6"
8"	8	11 3/4"	7/8"	13 1/2"	6"
10"	12	14 1/4"	1"	16"	6"
12"	12	17"	1"	19"	6"
14"	12	18 3/4"	1 1/8"	21"	6"

7 COUPLING DETAILS
CU501 SCALE: N.T.S.

FINALIZED DESIGN DEVELOPMENT - FOR CONSTRUCTION

CONSULTANTS:

ARCHITECT/ENGINEERS:



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80134
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Drawing Title
UST DETAILS AND HOLD DOWN

Approved Project Director
-
-
VAPAHCS PLANNING AND ENGINEERING

Project Title
E85 FUELING STATION

Location
- SHERIDAN WY
Date
10 OCT 13
Checked
MARINE
Drawn
KIRKMAN

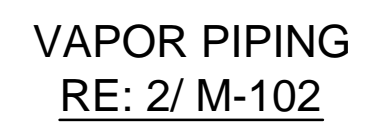
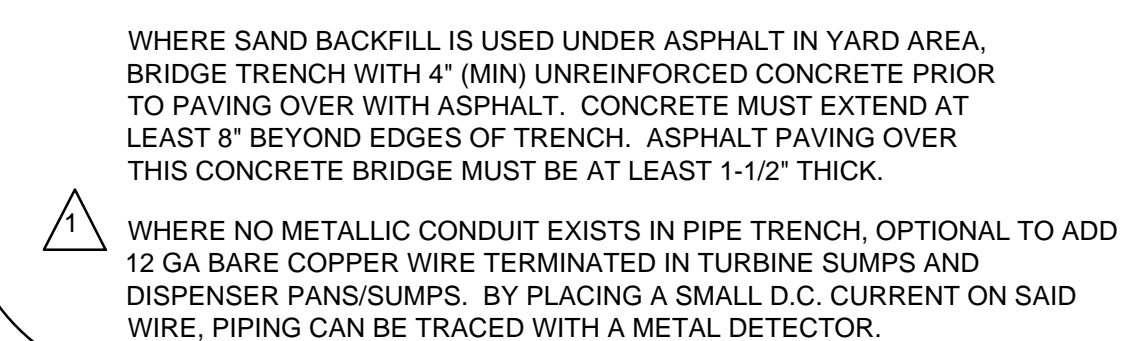
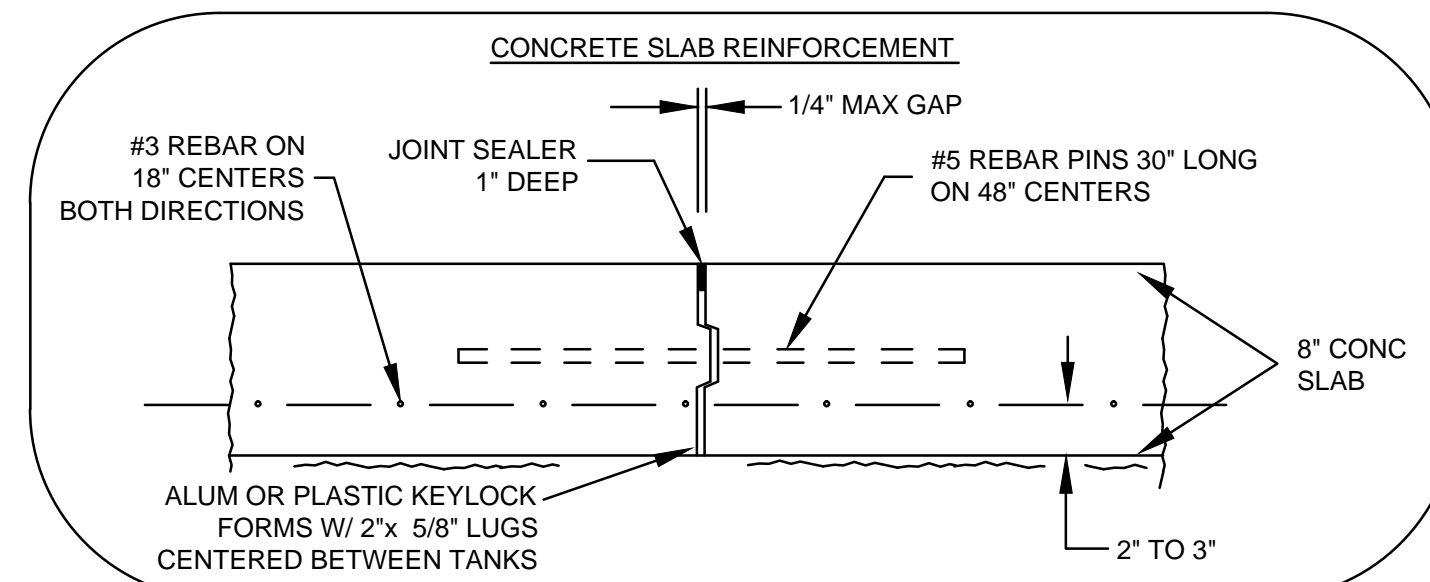
Project Number
666-310

Building Number
42

Drawing Number
CU501

Dwg. 3 of 9

Office of
Construction
and Facilities
Management

CONSULTANTS:

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Ste: 199
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CU502

Office of
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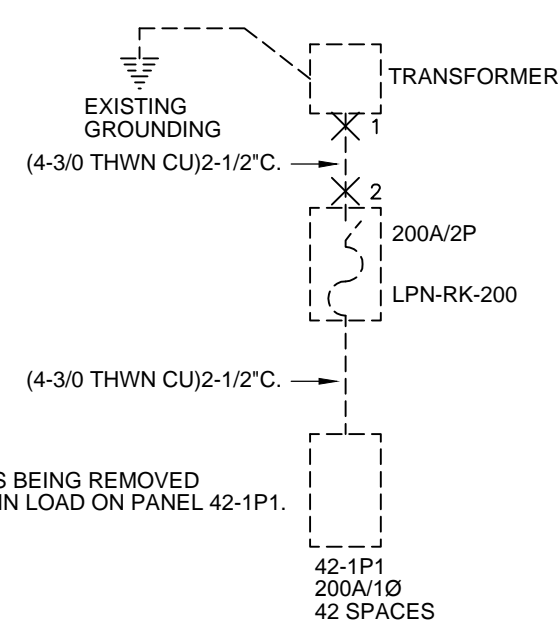
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PANEL 42-1P1 (EXISTING)											
MAINS:			200 AMPS			MAIN BREAKER: NONE			MOUNTING: FLUSH		
VOLT: 120/240			AIC: 10,000 A I.C.			OPTIONS: NONE					
OK	TYPE	LOAD	VA	DESCRIPTION	P	CB	PHASING	A	B	P	DESCRIPTION
1				DOOR	1					1	BALCONY
3				DOOR	1					1	OFFICE
5				EQUIPMENT	1					1	OFFICE
7										1	HEATER
9										1	LOCKER
11										1	EYE
13				EXISTING	1					1	EYE
15				EXISTING	1					1	AB
17				EXISTING	1					1	FACP
19										1	EXISTING
21										1	PRESSURE WASH
23										1	PRESSURE WASH
25										2	EXISTING
27											
29				EQUIPMENT WELDER	2						
31											
33	E	1000		DISPENSER	1	20				2	RANGE
35	E	1000		DISPENSER	1	20					
37	E	360		CARD READER	1	20				20	1 CANOPY LTS
39	E	200		CONTROL S	1	20				20	2 PUMP
41	E	900		TLR	1	20					
PANEL PHASE TOTAL (VA) A= 2964 VA B= 1980 VA (NEW LOADS ONLY)											
LOAD TYPE CONNECTED LOAD (VA) DEMAND FACTOR DEMAND LOAD (VA)											
LIGHTING REC < 10 KVA 214 1.00 268											
LARGEST MOTORS 1580 1.25 1975											
REMAINING MOTORS 3160 1.00 3160											
HEATING KITCHEN 1.00											
TOTAL CONNECTED LOAD 4964 VA DEMAND = 5403											
TOTAL PANEL FEEDER DEMAND AMPS = 23 A											

PARTIAL ONE LINE DIAGRAM (NO NEW WORK)

NO SCALE

BEFORE PERFORMING ANY WORK E.C. TO VERIFY THE EXISTING CONDITIONS OF THE ELECTRICAL SERVICE. VERIFY EXISTING FAULT CURRENT CALCULATION AT XFMR IS A MAXIMUM OF 10,000 ISCA.



EXISTING FUELING STATION IS BEING REMOVED AND REPLACED. NO CHANGE IN LOAD ON PANEL 42-1P1.

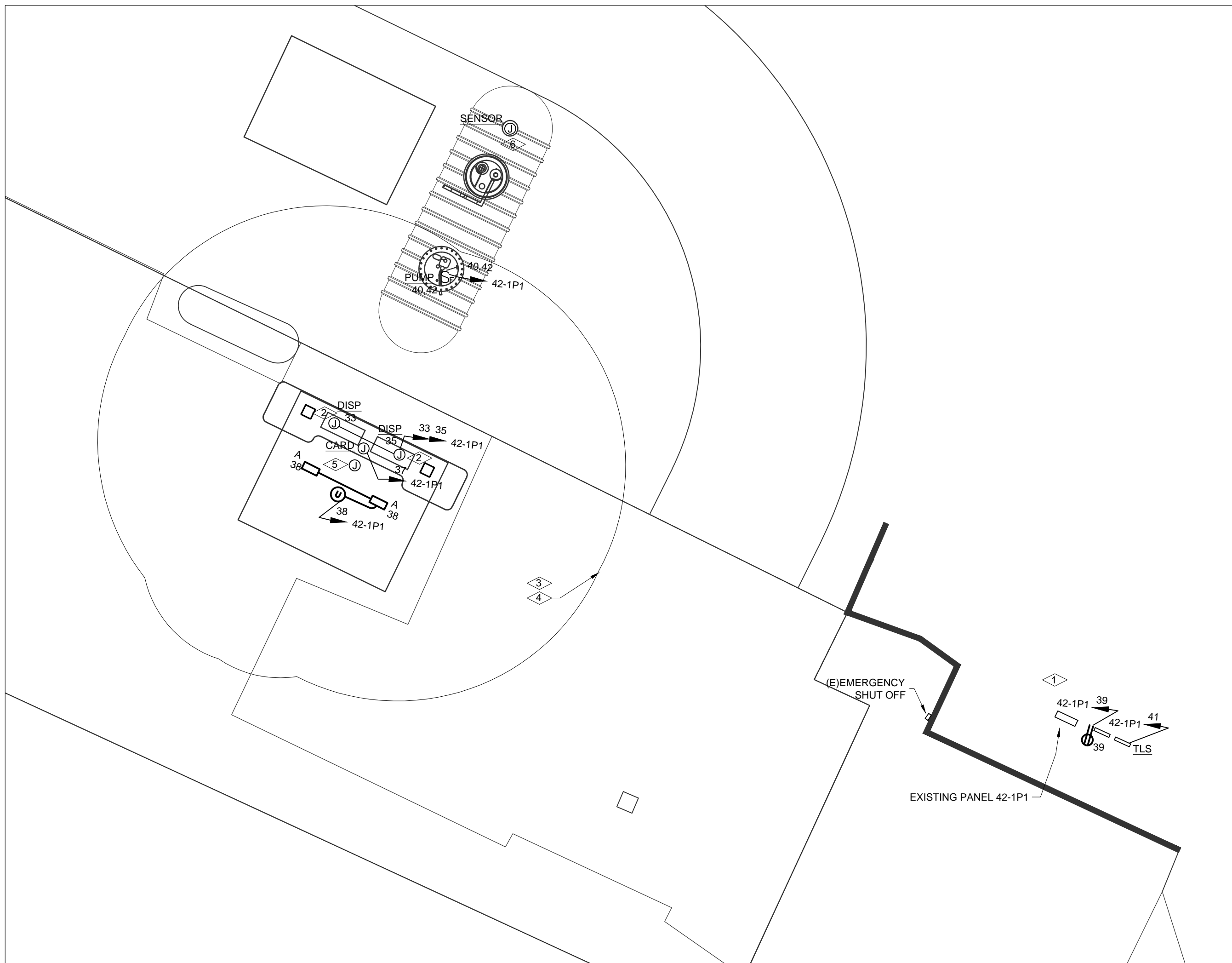
FAULT CURRENT TABLE			
FAULT	CURRENT SOURCE, CONDUCTOR IMPEDANCE	AVAILABLE SYM.	FAULT CURRENT
1.		FAULT AT XFMR	10,000 ISCA
2.		20' 3/0 CU	8,930 ISCA

EQUIPMENT SCHEDULE								
PLAN CODE	DESCRIPTION	VOLTS	PHASE	LOAD (WATTS)	WIRE SIZE	DISC. TYPE	DISC. SIZE	FUSE SIZE
DISP	DISPENSER	120	1	1000	(2-#12 THWN CU, #12S)/12"C.	FSW		MANU.
PUMP	FUEL PUMP	208	1	1580	(2-#12 THWN CU, #12S)/12"C.	FSW		MANU.
CARD	CARD READER	120	1	360	(2-#12 THWN CU, #12S)/12"C.	FSW		MANU.

FSW = FUSED SAFETY SWITCH; CB = CIRCUIT BREAKER; RECP = RECEPTACLE; SW = SWITCH/OCCUPANCY SENSOR; E.C. TO VERIFY THE NAMEPLATE DATA ON THE ACTUAL EQUIPMENT PROVIDED BEFORE DOING ANY WORK.

LIGHTING FIXTURE SCHEDULE					
PLAN CODE	DESCRIPTION	VOLTS	MANUFACTURE	CATALOG #	TOTAL WATTS
A	CANOPY LIGHT	120VOLT	LITHONIA	200SC LED/200C 1000-60K-125M/VOLT	107

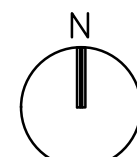
E.C. TO VERIFY FIXTURE TYPES, SWITCHING, AND LOCATIONS WITH ARCHITECT. FIXTURES F3, F3-EM, HB, HB-EM TO HAVE MULTIPLE BALLASTS FOR INDOOR/OUTBOARD SWITCHING. CIVIL ENGINEER IS DESIGNING POLE BASES FOR 100 MPH.



ELECTRICAL PLAN

SCALE: 1/8"=1'-0"

1
E101



SHEET NOTES

- SEALS REQUIRED AT ALL CONDUITS LEAVING PANEL(NEC 514).
- SEALS REQUIRED AT ALL GAS PIPE DESPENSORS(NEC 514).
- SEALS REQUIRED AT CONDUITS LEAVING CLASS I HAZARDOUS LOCATION(NEC 514). E.C. TO USE EQUIPMENT AND WIRING RATED FOR CLASS I LOCATIONS.
- CLASS I HAZARDOUS LOCATION. E.C. TO USE EQUIPMENT AND WIRING METHODS RATED FOR CLASS I LOCATIONS. THREADED RIGID METAL CONDUIT OR THREADED STEEL INTERMEDIATE METAL CONDUIT.
- LOCATION OF SECURITY EQUIPMENT. E.C. TO PROVIDE 34"C AND PULLSTRING BACK TO COMM. ROOM. VERIFY EXACT LOCATION OF EQUIPMENT WITH I.T.
- E.C. TO PROVIDE 34"C AND PULLSTRING BACK TO TLS.

LIGHT FIXTURE LEGEND

- WALL MOUNTED FIXTURE
- SOFFIT MOUNTED
- LINEAR INDIRECT
- 2' x 2' LAYIN
- 2' x 2' LAYIN W/ EM. BALLAST.
- SURFACE WRAP
- TRACK
- FLOUR. HIGH BAY
- FLOUR. HIGH BAY/W/ EM.
- STRIP LIGHT
- STRIP LIGHT W/ EM. BALLAST
- WALL MOUNTED ROADWAY LIGHT
- EMERGENCY EXIT SIGN
- EMERGENCY "FROG EYES"

ELECTRICAL DEVICE LEGEND

- WALL SWITCH
- DIMMER SWITCH
- WALL MOUNTED DUPLEX RECEPTACLE
- WALL MOUNTED DOUBLEDUPLEX RECEPTACLE
- CEILING MOUNTED RECEPTACLE
- FLOOR MOUNTED DUPLEX RECEPTACLE
- SPECIAL PURPOSE RECEPTACLE
- PANEL
- HOMERUN, PANEL AND CIRCUIT DESIGNATION.
- NEW CONDUIT.
- EXISTING CONDUIT.
- UNDERGROUND ELECTRICAL CONDUIT.
- FUSED SWITCH
- NONFUSED SWITCH
- COMBINATION FUSED SWITCH/MOTOR STARTER
- MOTOR STARTER
- MOTOR
- TIME CLOCK.
- PHOTOELECTRIC CELL
- JUNCTION BOX.
- DUAL TECHNOLOGY OCCUPANCY SENSOR
- DAY LIGHTING SENSOR

ELECTRICAL ONE LINE LEGEND

- SINGLE PHASE WEATHERHEAD
- THREE PHASE WEATHERHEAD
- ELECTRICAL METER
- C.T. AND ELECTRICAL METER
- GROUND
- FAULT
- ELECTRICAL PANEL
- ELECTRICAL PANEL W/ MAIN CIRCUIT BREAKER
- CIRCUIT BREAKER
- FUSED SWITCH
- NONFUSED SWITCH

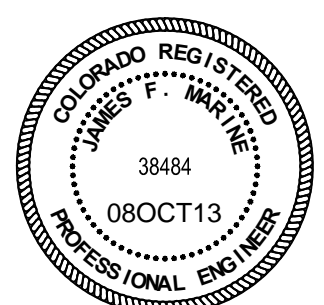
CONTRACTOR COORDINATION SCHEDULE

ITEM FURNISHED	FURNISHED BY	MOUNTED BY	WIRED BY
LOCATING EXISTING EXTERIOR UTILITIES	G.C.	-	-
LOCATING EXISTING INTERIOR UTILITIES	P.C./E.C.	-	-
CONCRETE EQUIPMENT PADS	G.C.	G.C./S.C./M.C.	-
EXCAVATION, BACKFILL, AND CONCRETE OR ASPHALT PAVING FOR UTILITIES OR OTHER MIE EQUIPMENT	G.C.	AH/J.G.C./C.C.	-
FLASHING OVER THE TOP OF PLATFORMS AND CURBS	G.C.	G.C./R.C.	-
ROOFING REPAIR AND/OR SEALING OF ROOFING SYSTEM	G.C.	G.C./R.C.	-
MOTOR STARTERS AND COMBINATION MOTOR STARTERS TO INCLUDE THERMAL OVERLOADS.	M.C./P.C.	E.C.	E.C.
STARTERS IN MOTOR CONTROL CENTERS	M.C.	E.C.	E.C.
MULTISPEED SWITCHES.	M.C.	M.C.	E.C.
DISCONNECT SWITCHES.	E.C.	E.C.	E.C.
CONDUIT FOR ALL WIRING.	E.C.	E.C.	-
CONTROL TRANSFORMERS FOR HVAC EQUIPMENT	M.C.	M.C.	E.C.
HVAC CONTROL WIRING 48 VOLTS AND LESS.	T.C./M.C.	T.C./M.C.	T.C./M.C.
WIRING GREATER THAN 120 VOLTS.	E.C.	E.C.	E.C.
INTERLOCK	M.C./E.C.	E.C.	E.C.
NON-LOAD VOLTAGE CONTROL SYSTEMS	M.C.	M.C.	M.C.
DUCT AND SMOKE DETECTORS INTERFACED WITH BUILDING FIRE ALARM SYSTEM.	F.A./C.E.C.	M.C.	F.A./C.E.C.
FIRE PROTECTION CONTROLS INCLUDING FLOW SWITCHES	M.C.	M.C.	M.C./E.C.

FINALIZED DESIGN DEVELOPMENT - FOR CONSTRUCTION

CONSULTANTS:

ARCHITECT/ENGINEERS:



Aegis Engineering, Inc.
A Veteran Owned Small Business
10940 South Parker Road
Ste: 199
Parker, Colorado
80134
(720)259-0749

Drawing Title

ELECTRICAL PLAN AND NOTES

Approved Project Director

VAPAHCs PLANNING AND ENGINEERING

Project Title

E85 FUELING STATION

Location

VAMC SHERIDAN WY

Date

10 OCT 13

Checked

MARINE

Drawn

KIRKMAN

Project Number

666-310

Building Number

42

Drawing Number

E101

Dwg 5 of 9

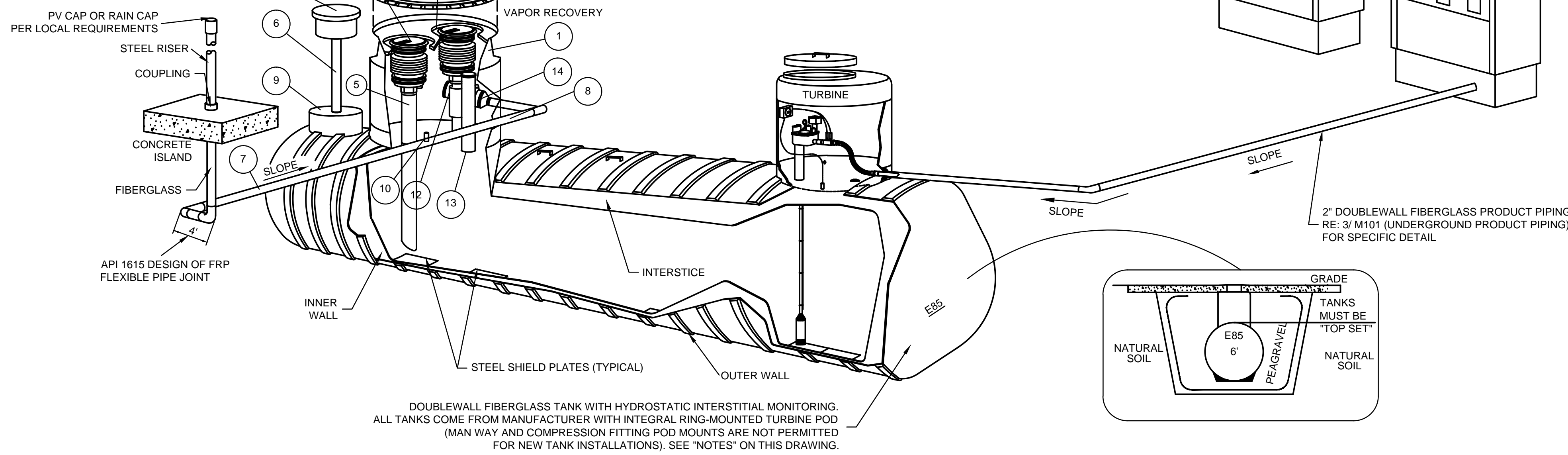
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and Facilities
Management

three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot

LEGEND

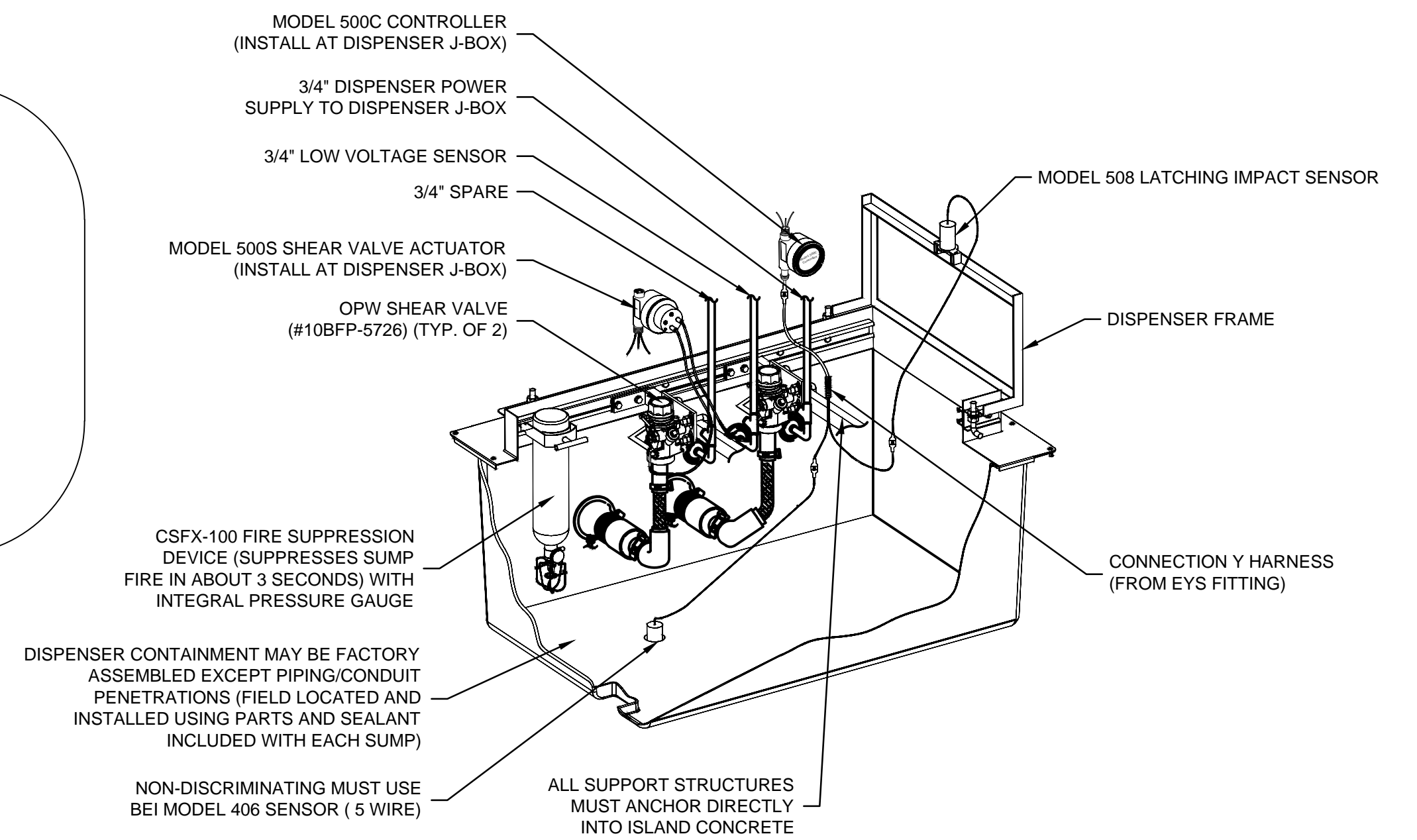
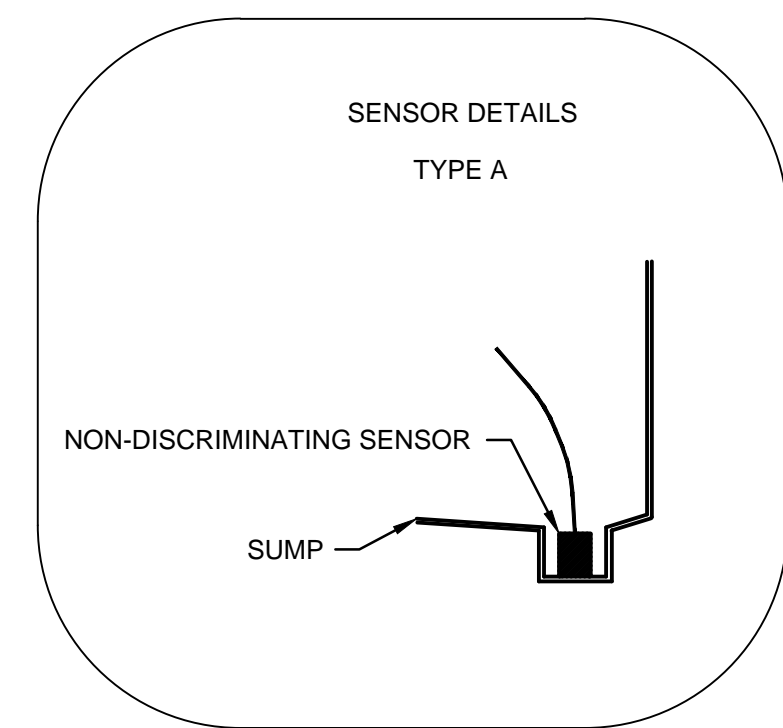
- 48" FIBRELITE ELITE FIBERGLASS SUMP MOUNTED ON FACTORY BONDED RING
- FL-36 36" FIBRELITE ACCESS LID/SEAL RING FACTORY MOUNTED ON SUMP LID
- FIBERGLASS WALKING SURFACE BY FIBRLITE
- PHIL-TITE MODEL 85000 SPILL COLLECTOR
- STEEL RISER - (RE: 3/ M-102)
- ABS OR PVC RISER
- 3" FIBERGLASS - UNDERGROUND; STEEL - FROM COUPLING ON UP
- 3" VENT LINES
- INTERSTITIAL RESERVOIR
- ELECTRONIC SENSOR
- UNIVERSAL VALVE 62 WEATHER-RESISTANT, LOCKABLE ACCESS BOX
- STREET CROSS OR STREET TEE AS APPLICABLE
- TANK GAUGE
- WEAVER FITTING

3" SINGLE-WALL VAPOR RECOVERY RETURN,
3" VENT, & 3" VAPOR MANIFOLD. MINIMUM VERTICAL
RISE OF MANIFOLD TO BE 24" ABOVE TANK TOPS.
NOTE: WHERE SINGLE WALL PIPING IS CALLED OUT,
AMERON LCX DOUBLE WALL MAY BE USED.



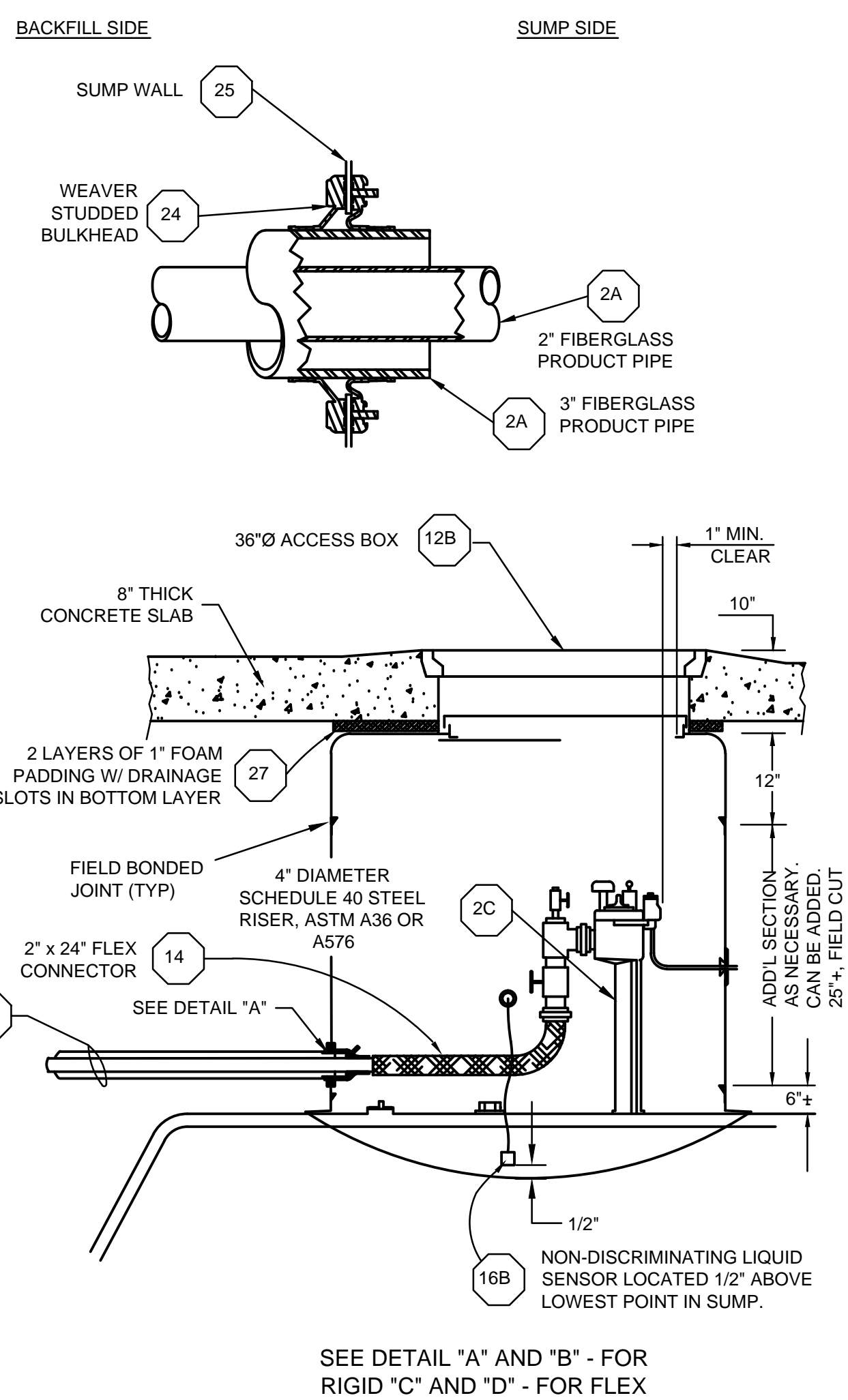
1 ISLAND AND TANK ARRANGEMENT
SCALE: N.T.S.

DETAIL "A" DISPENSER CONTAINMENT
PRODUCT TERMINATION

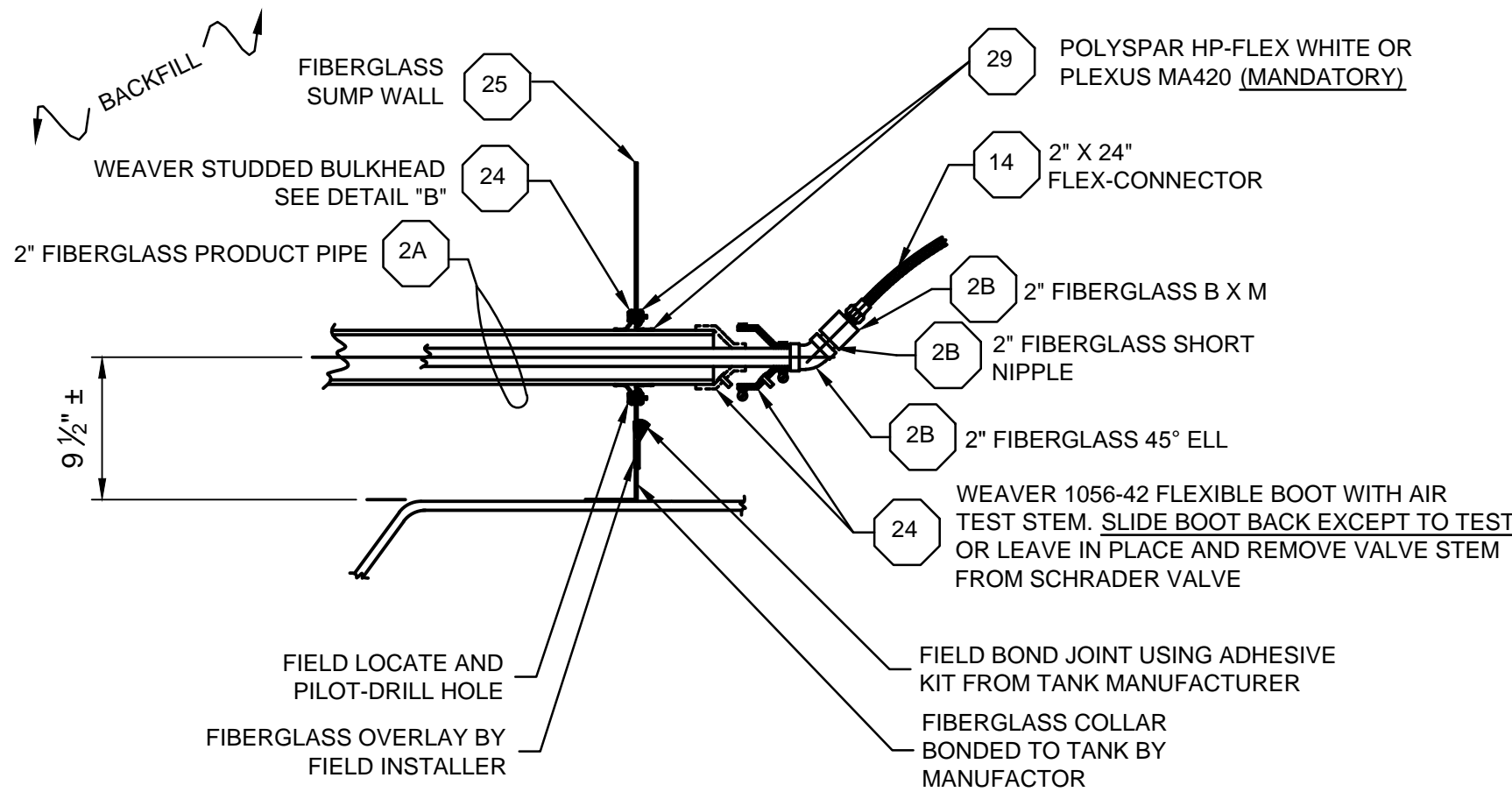


2 DISPENSER CONTAINMENT DETAILS
SCALE: N.T.S.

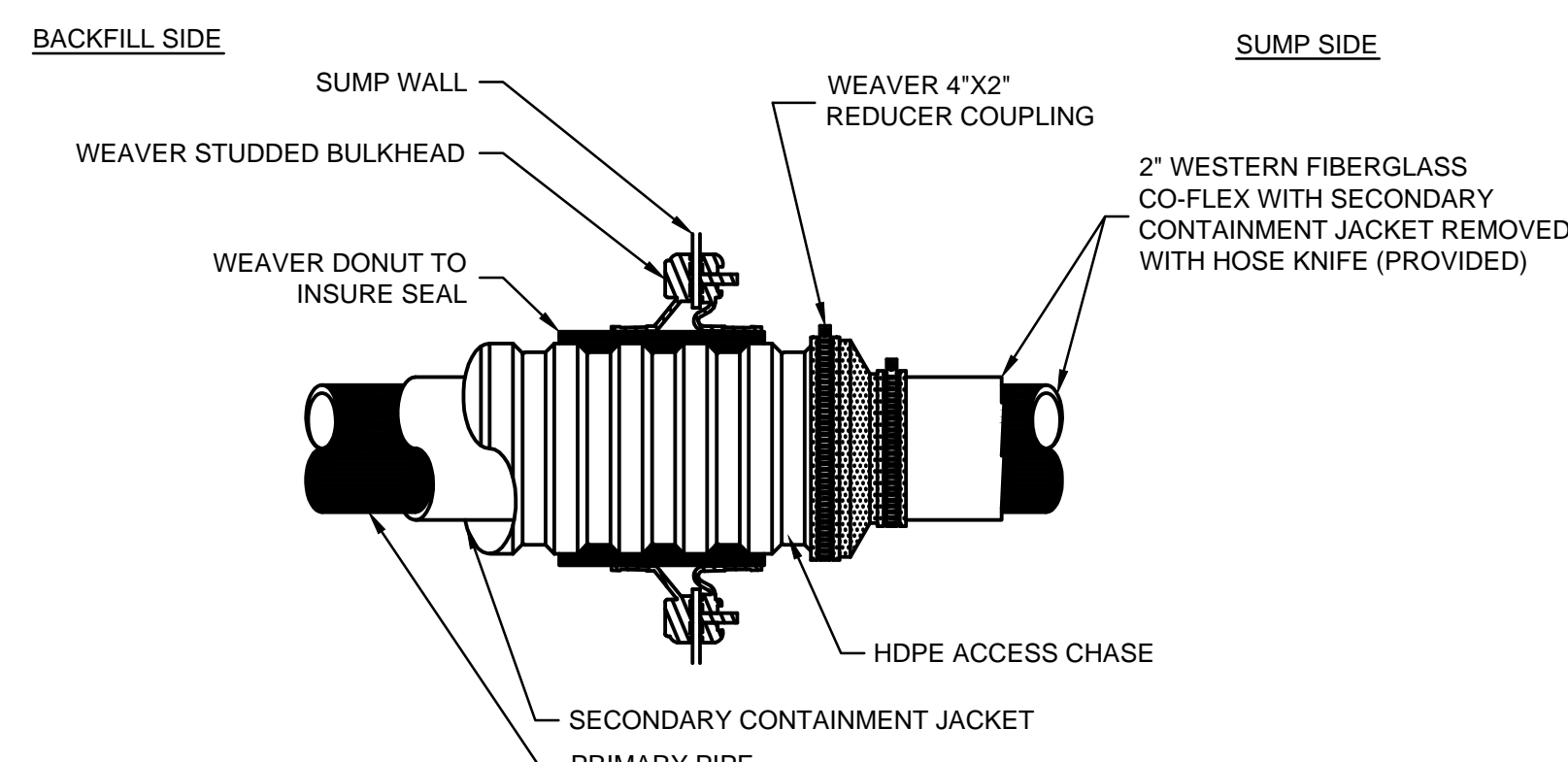
DETAIL "B" RIGID PIPING



DETAIL "A" RIGID PIPING



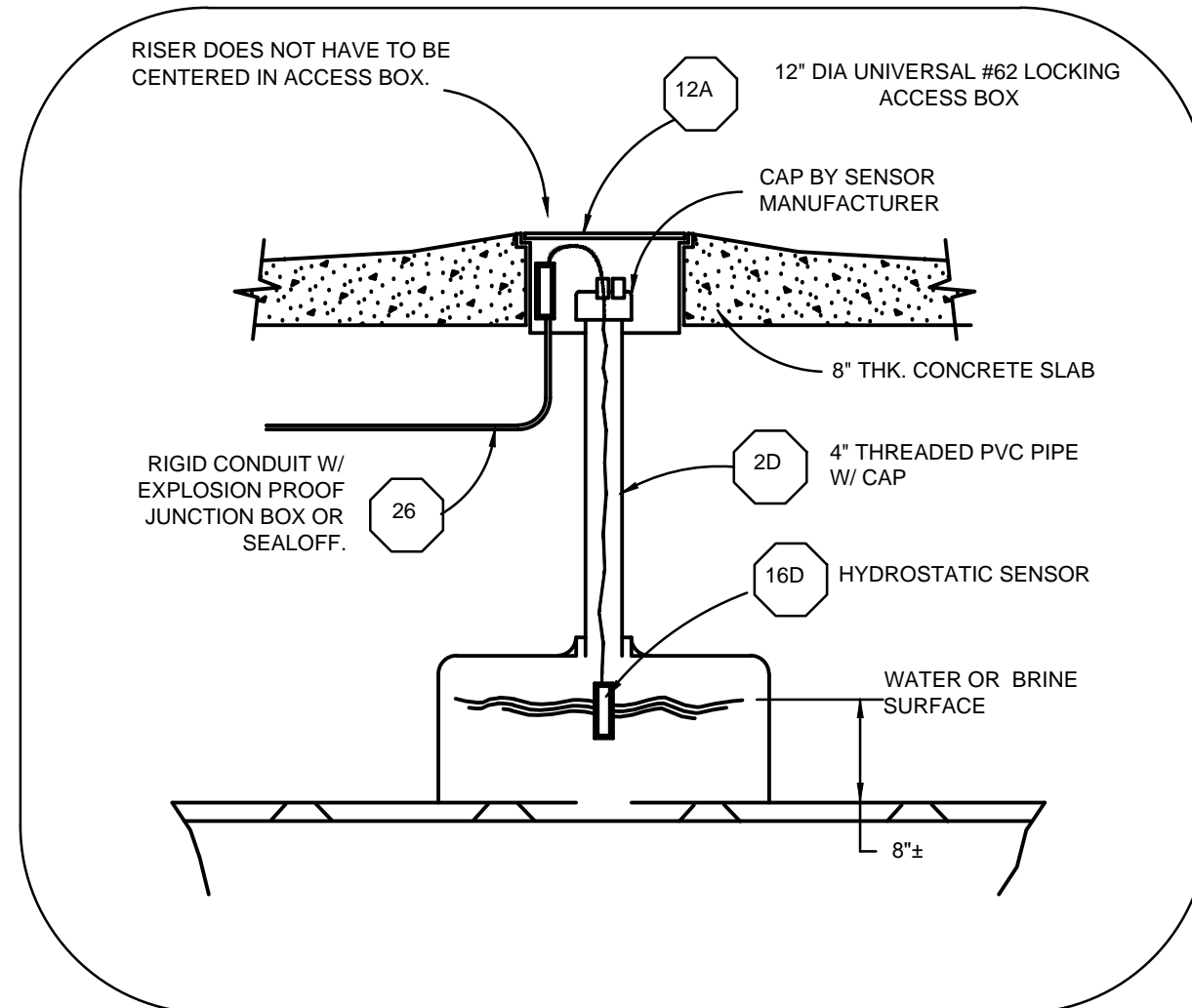
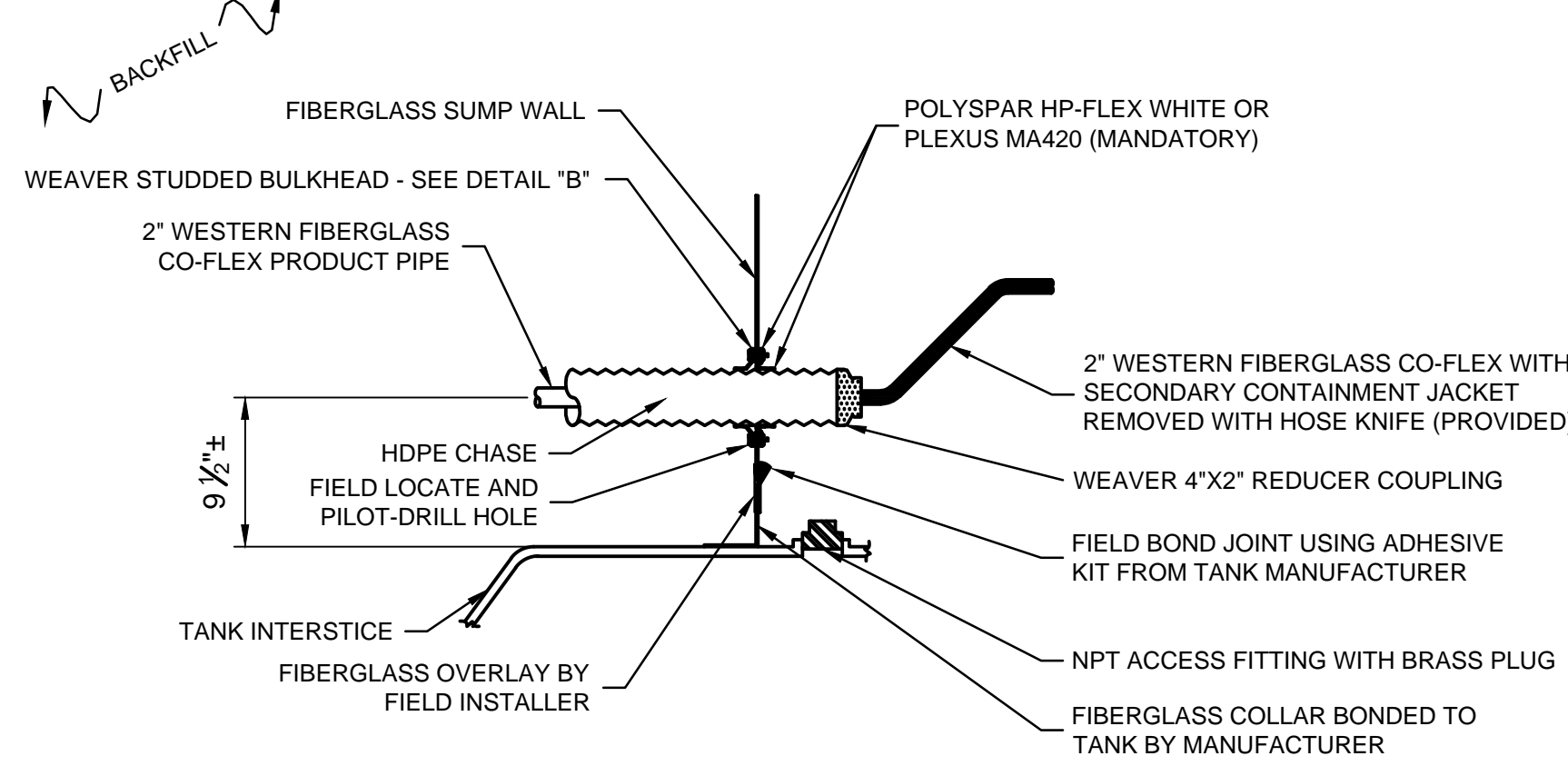
DETAIL "D" FLEX PIPING



ALL PENETRATION FITTINGS TO BE INSTALLED WET

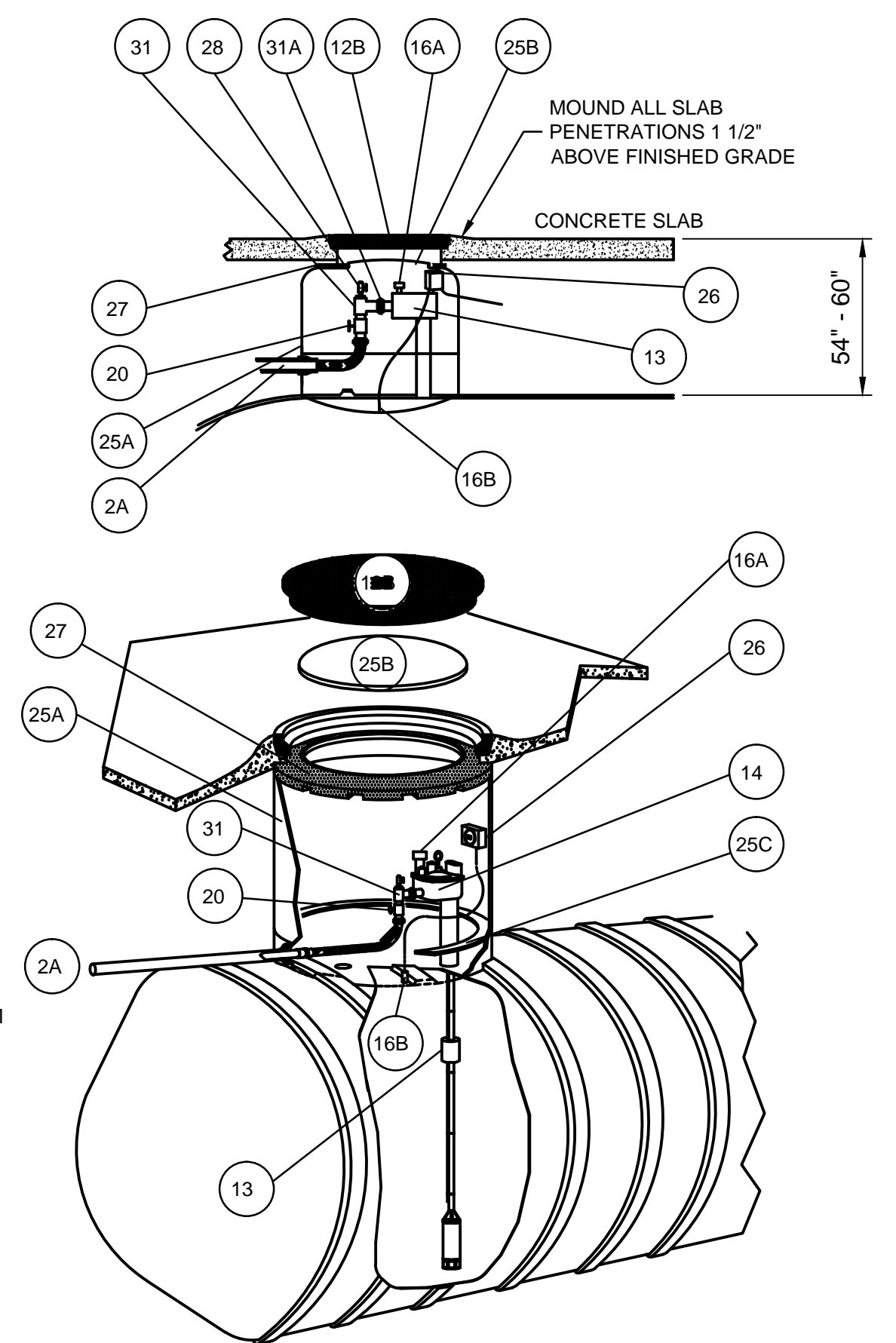
3 PIPING AND CONNECTION DETAILS
SCALE: N.T.S.

DETAIL "C" FLEX PIPING



4 HYDROSTATIC MONITORING DETAILS
SCALE: N.T.S.

- 2A 2"/3" DOUBLE-WALLED FIBERGLASS PRODUCT LINE
- 12B FL-36 36" FIBRELITE LID
- 13 TURBINE
- 14 FE PETRO VL Z LENGTH ADJUSTMENT DEVICE
- 16A ELECTRONIC LINE LEAK DETECTOR
- 16B ELECTRONIC LIQUID SENSOR, 1/2" MAXIMUM DISTANCE FROM LOWEST PART OF SUMP
- 20 2" JOMAR T-100, FULL PORT BALL VALVE
- 25A 48" SEALED FIBERGLASS SUMP BONDED TO TANK
- 25B SUMP CAP
- 25C BONDED FLANGE - NO BOLTS
- 26 EYS SEALOFF, X-PROOF J-BOX, AND CONDUIT
- 27 2 LAYERS OF 1" FOAM PADDING WITH DRAINAGE SLOTS IN BOTTOM LAYER
- 28 1/2 BRASS BALL VALVE WITH 1/2" BRASS OR STEEL PLUG
- 31 2" STEEL TEE WITH 2"x1/2" STEEL REDUCING BUSHING, ASTM A36 OR A576, SCHEDULE 40.
- 31A 2" 150# STEEL UNION WITH BRASS SEATS



VAPOR RECOVERY (NEITHER STAGE I NOR STAGE II) REQUIRED FOR DIESEL

5 TURBINE SUMP DETAILS
SCALE: N.T.S.

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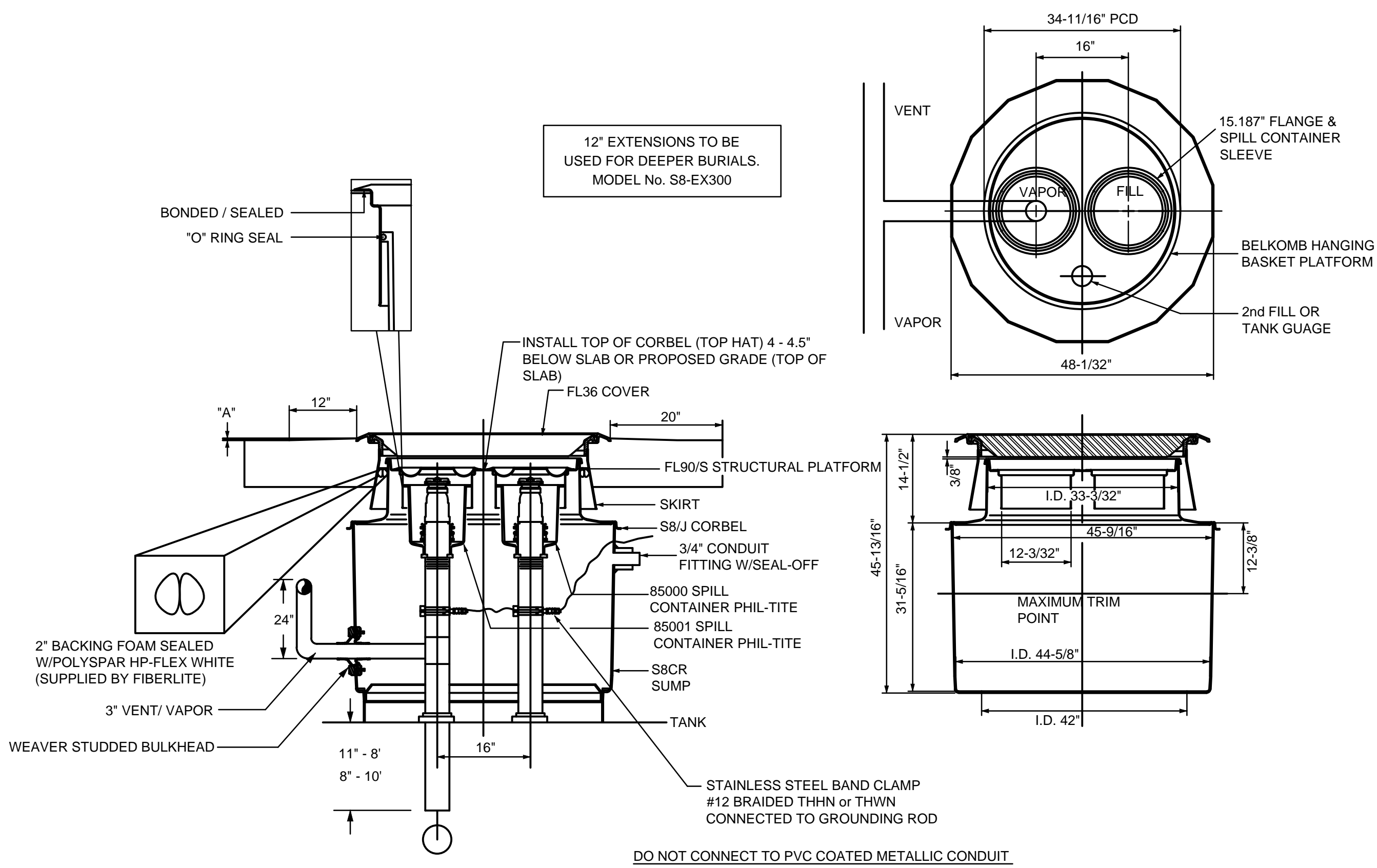
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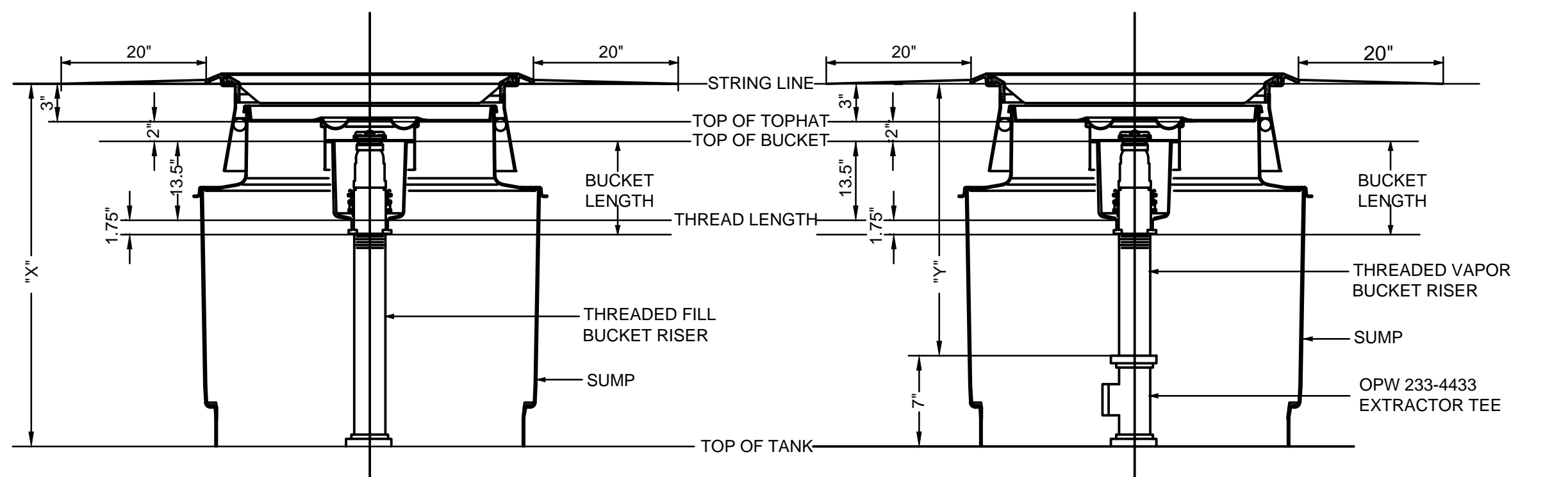
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VA FORM 08-6231



- SUMP SENSORS TO BE INSTALLED. RE: 1/ E-101

1 FILL SUMP DETAILS
SCALE: N.T.S.



FILL RISER CALCULATION

$\text{DISTANCE FROM STRING LINE TO TANK} = \text{STRING LINE TO TOP OF TOPHAT} + 2 \times \text{TOP OF TOPHAT TO TOP OF BUCKET} + 13.5 \times \text{LENGTH OF PHIL-TITE SPILL BUCKET} + 1.75 \times \text{ALLOWANCE} = \text{LENGTH OF THREADED RISER FOR FILL BUCKET}$

OR

$X' \times 16.75 = \text{LENGTH OF THREADED RISER FOR FILL BUCKET}$

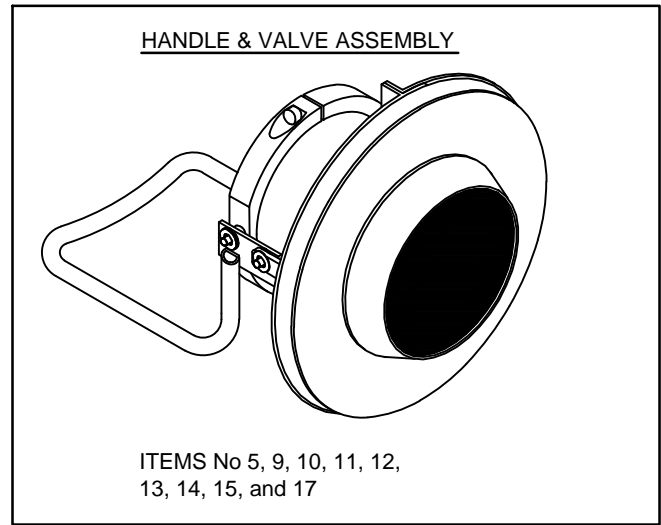
VAPOR RISER CALCULATION

$\text{DISTANCE FROM STRING LINE TO TANK} = \text{STRING LINE TO TOP OF TOPHAT} + 2 \times \text{TOP OF TOPHAT TO TOP OF BUCKET} + 13.5 \times \text{LENGTH OF PHIL-TITE SPILL BUCKET} + 7 \times \text{LENGTH OF OPW 223 ALLOWANCE} + 1.75 \times \text{RISER FOR VAPOR BUCKET} = \text{LENGTH OF THREADED RISER FOR VAPOR BUCKET}$

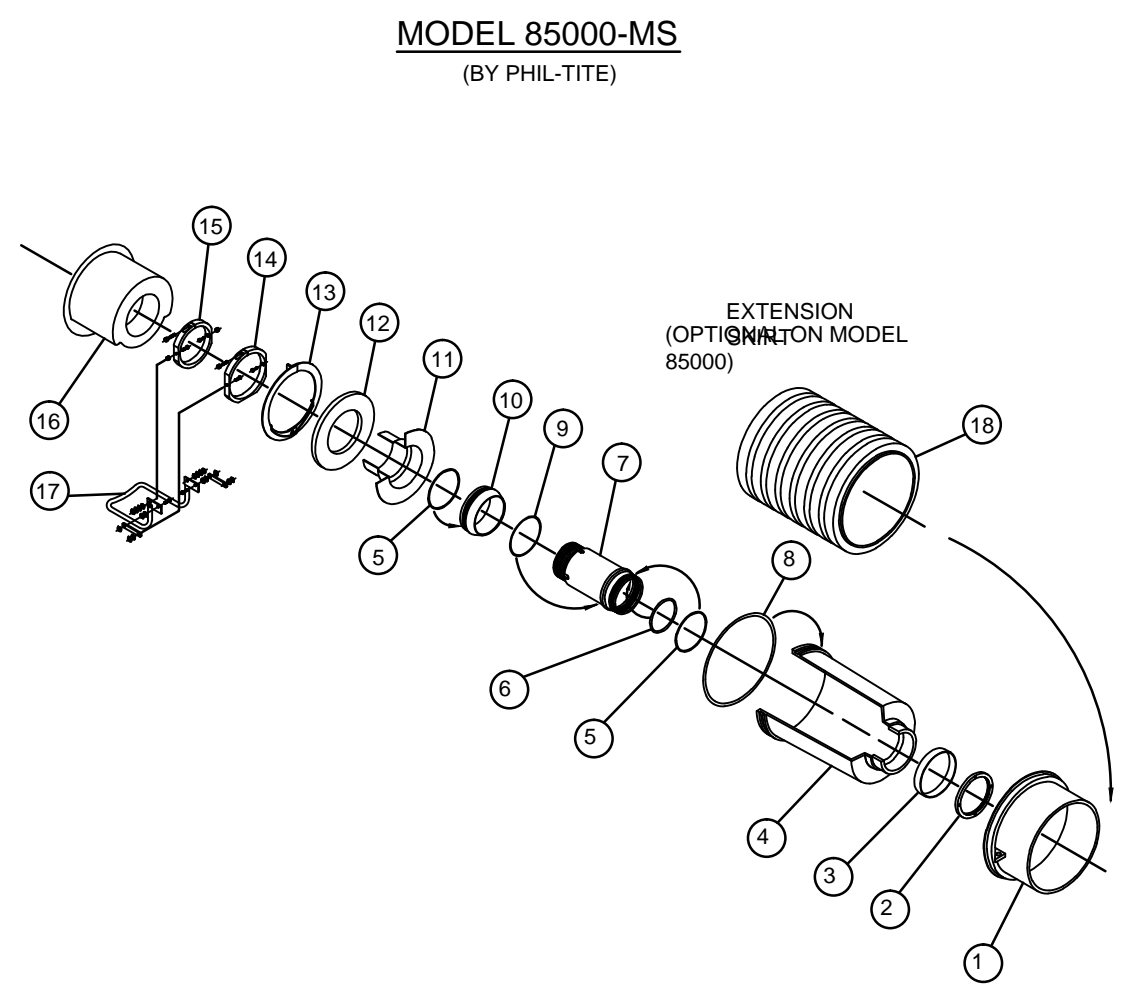
OR

$Y' \times 23.75 = \text{LENGTH OF THREADED RISER FOR VAPOR BUCKET}$

3 RISER CALCULATIONS
SCALE: N.T.S.



ITEM	PART No.	DESCRIPTION	REQD
1	85010	SLEEVE	1
2	85019	FLANGE NUT	1
3	85018	COMPRESSION RING	1
4	85065	BUCKET	1
5	85035	RISER TUBE O-RING (OUTER) & SHUT OFF COLLAR O-RING (UPPER)	2
6	85039	RISER TUBE O-RING (INNER)	1
7	85020	RISER TUBE	1
8	85036-N	BUCKET O-RING	1
9	85038-1	SHUT OFF COLLAR O-RING (LOWER)	1
10	85021	SHUT OFF COLLAR	1
11	85032	BELLOW & SCREEN	1
12	UF8005	FOAM FILTER	1
13	85031	BELLOW & SCREEN RETAINING RING	1
14	85050	CLAMP (LOWER)	1
15	85040	CLAMP (UPPER)	1
16	PP-1005-TB	BUCKET INSERT	1
17	85023	BAIL HANDLE	1
18	85029	EXTENSION SKIRT (OPTIONAL)	1



2 SPILL COLLECTOR ASSEMBLY
SCALE: N.T.S.

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